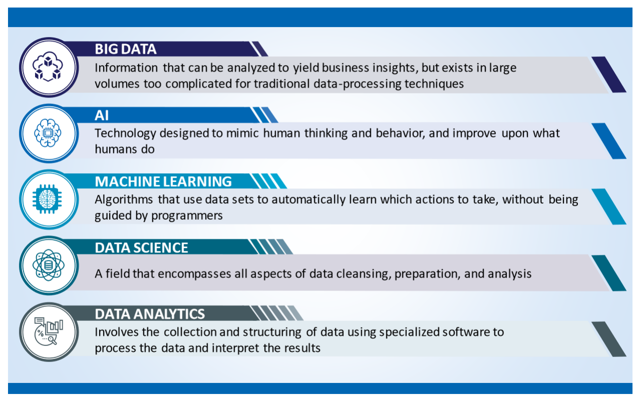
The private equity market can be surprisingly slow to embrace new opportunities to differentiate (particularly in the lower middle market segment, where we focus). The business model for the first decade or two of private equity's existence was mostly about financial engineering. By the late 1990s, PE investors had added operational improvement to the toolkit. A decade later, we saw the emergence of a number of funds emphasizing hands-on strategy and an external orientation – customer, competitor and market insights became more important.

Today, most private equity investors have a sense that Big Data, machine learning, AI and data analytics will have a role in their market, but are unsure precisely what impact it could have. Others simply scoff at the idea that AI could replace human knowledge, skills and experience in any way. Qualtrics, the customer research and technology company, wrote in an article about AI and Market Research, that many industries believe they are immune to the impact and insights that AI can bring: "Farming? No, smart harvesters that can spot ripe crops and pick them at the right moment are already in development. Education? No, AI is currently being tested to grade homework and personalize lesson subject matter… Retail? No, AI is expected to produce personalized product recommendations and custom sales pitches." If AI can reach help farmers, private equity's impact is probably already being felt.

> "Data analytics resulting from AI and from machine learning will become more useful to investment professionals than the original Lotus 123 and Microsoft Excel spreadsheets were to the first generation of private equity."

The emergence of data analytics resulting from AI and from machine learning will become more useful to investment professionals than the original Lotus 123 and Microsoft Excel spreadsheets were to the first generation of private equity. So, what are we talking about when we use terms like Big Data and Data Analytics. It turns out there is a logical flow from data to useful, actionable analytics: (source: TresVista):



Despite the risks of early adoption, and regardless of how a private equity fund strives to differentiate, the opportunities that data analytics afford are worth investigating now. Increasingly, competition, valuations, speed and LP expectations combine to create strong motivators to identify new tools, new technologies that can make a fund better, stronger, faster. The data is there for the taking. In fact, as much as 90 percent of all the data in the world was generated in the last two years. Those organizations who view this data as representing incredible opportunities for insight, knowledge and power will inevitably create headaches for those left behind with no plan to collect, store, manage and analyze all of that data. Ian Picache of Two-Six Capital, a first mover, noted in September of 2018, "The use of big data techniques is nascent. It is only a matter of time before the private industry is disrupted."

At this stage, PE groups are best served to partner with a service provider, an expert in gathering, organizing and analyzing in order to provide actionable decision support. Eventually, though, the job title Data Scientist, Head of Data Analytics, or something similar, may eventually become as pronounce as Deal Team Principal or Operating Partner. Data Analytics will play important roles in all phases of the fund's lifecycle, starting with fundraising, business development and deal sourcing.

Fundraising. LPs increasingly will expect access to organized, analyzed data to aid them in their assessments of funds. Even if it only means "playing along" and providing access to internal, portfolio company and historical performance data, for some PE groups, this may be their first practical exposure. In order to raise a fund, you may need to contribute to someone else's algorithms to measure fund performance.

Business development. The process of deciding which segments to prioritize, and why, which companies to pursue proactively on a proprietary basis, and assessing which segments will be most interesting to buyers in five years – all will be made easier, faster and better with Big Data. Web scraping is being used to identify trends, themes, ideas. Machine learning helps to decide where attractive PE funds are positioning themselves and learning where to focus. As TresVista observes, "Analytics can assess customer sentiment about a brand, or a specific product or service. Large volumes of social media posts, customer reviews, and other unstructured data are analyzed to achieve that. By looking at relevant data patterns and trends, firms can conduct early detection of the buzz surrounding brands and determine whether it's an opportunity worth pursuing." (TresVista)

Commercial Diligence. Transaction data analytics facilitates faster and more comprehensive business due diligence, by automating the process of gathering end-user or customer feedback. Web scraping and continuous monitoring of customer reviews and other feedback will enhance proactive customer survey processes. The identification, assessment, comparison and analysis of competitor actions can also take place during a brief diligence window. And market sizing, segmentation, growth assessments and especially trends and drivers analysis can be improved with enhanced data and precision through data analytics.

Portfolio company reporting, monitoring and improvement. There are obvious drawbacks to today's method of portfolio company data gathering and analysis. Robert Bass of the family office Bass Brothers Enterprises observed recently "Historically, the data wasn't available. Businesses were run on visceral intuitions. Now, the data is readily available and exponentially created. Every time you click on the Internet, it's creating data for somebody to analyze how to run their businesses better. Data analytics is the low-hanging fruit to create value in every portfolio company we own."

Today, operating companies are obviously required to submit monthly, quarterly, and annual reports. Their owners then aggregate these disparate inputs into one cohesive report that ideally reflect the overall performance of an investment portfolio. However, this is time-consuming and costly. And reports are fragmented and only reflect a company's performance at a single point in time.

There is a better way, of course. Gathering data on a continuous basis is possible.

While a treasure trove of portfolio company data exists, capturing the entire story built from the ground up with underlying, consistent, real-time data is a distraction for the portfolio company. In addition, it might be too much information for a team of private equity analysts to digest on a regular basis. "The ERP system tracks useful operational level data (such as warehouse inventory, payroll, and product traceability) for high-level scrutiny, but rarely is there a specific person or team dedicated to dissecting operational level data to gain deeper operational awareness. This is where data analytics can prove to be a valuable asset, combing through the data to streamline operations and create a strategic plan for the business. The ability to provide these insights and improvements can not only help create a strong performance record for existing assets but also become the partner of choice for future portfolio assets as well." (TresVista)

The benefits of one company's data are multiplied when an entire portfolio's worth of data is compared. "The opportunity provided by benchmarking company performance across a portfolio in real-time is both incredible and completely unrealized. In the same way it is valuable to collect robust data on portfolio companies to give a clearer picture of performance, it is valuable to uncover strategic advantages and prescriptions across a portfolio. Benchmarking uncovers opportunities that portfolio company executives could not see otherwise, both adding value to as a capital provider and a strategic partner." (Malartu)

In reality, any tactical or strategic decision, whether internal (e.g., operational) or external (customer, competitor, market, supplier) can benefit from analysis of the vast volumes of data readily available on any subject. An example could involve pricing decisions. Real-time data on changes in competitors' pricing changes combined with live insights on customer responses to price increases or decreases (from customer reviews) can certainly inform pricing decisions.

Sell-side. In making decisions about the timing of the sale of a company, web scraping can aid in timing decisions – based in part on qualitative insights that can be collected about trends, drivers, themes that serve as a rising tide for its market. "If the data conveys a compelling story about areas for revenue growth or creating cost efficiencies, it can help boost value by sharing that story with buyers during the diligence process." (TresVista) It is also possible to automate the identification of ideal acquirers in advance, based on overt data such as investment criteria, but also based on subtle clues and patterns that may be difficult to recognize. Finally, analytics can help identify areas that may need improvement before commencing a sale process.

Next steps: For most private equity investors, the best way to utilize Big Data is to collaborate with service providers with expertise in collecting, sorting, cleansing, analyzing, and presenting clear insights. The exception is Two-Six Capital, which has built a fund around the concept of differentiating based on their internal ability to gather, analyze and make investment decisions based on analytics – in their case, of lifetime value of customers of acquisition targets. Rather than simply waiting for data analytics to land in your lap, know what you are looking to solve for. In other words, where in the investment lifecycle do you want to incorporate data analytics? What decisions are you making or hypotheses are you testing? Sorting out how you will use the data will help ensure that the data presented to you is meaningful and actionable for your needs. There is certainly plenty of data – and opportunity – available for the picking.

Acclaro Growth Partners looks forward to helping private equity groups aggregate and analyze data into actionable, impactful options for deal teams and management to consider.