Customer Experience, Big Data, and Competitive Advantage | Larry Freed

To compete and win in today's ultracompetitive environment, where consumers are in control and switching costs are very low, the customer experience is more important than ever before.

Businesses cannot stand still; they must continue to push the envelope and evolve—not only products, services, and marketing but also analytics.

Businesses can gain a competitive advantage by having the most accurate, precise, reliable, insightful, and actionable customer experience analytics. Such analytics give companies the ability to make good decisions, decisions that most often will lead to success. With the right analytics, the probability of making good decisions is greatly increased. Companies with insightful and actionable analytics can respond to the market and their customers quicker than their competitors. Tomorrow's winners will be defined by the innovative strength of the customer experience analytics they use and implement.

The key to measuring this new world of customer experience analytics is to understand the rise of big data. In 2000, only one-quarter of all the stored information in the world was digital;

paper, film, and other analog media ruled. No more. With the amount of digital data doubling every three years, as of 2013 less than 2 percent of all stored information is nondigital.

So what is big data? It is the explosion of structured and unstructured data about people caused by the digitization and networking of everything: computers, smartphones, GPS devices, embedded microprocessors, and sensors, all connected by the mobile Internet that is generating data about people at an exponential rate. Big data is driven by the three Vs: an increasing Volume of data with a wide range of Variety and gathered and processed at a higher Velocity.

The increase in volume provides us a bigger set of data to manipulate. This provides higher accuracy, a lower margin of error, and the ability to analyze the data into many more discrete segments. In 2010, over 4 billion people were using mobile phones, and about 12 percent of those people had smartphones, whose penetration is growing at more than 20 percent a year. More than 30 million networked sensor nodes are now present in the transportation, automotive, industrial, utilities, and retail sectors. The number of these sensors is increasing at a rate of more than 30 percent a year.

The new data stored by enterprises exceeded seven exabytes of data globally in 2010, and new data stored by consumers around the world that year was an additional six exabytes. To put

these very large numbers in context, the data that companies and individuals are producing and storing is equivalent to filling more than 60,000 U.S. Libraries of Congress.

The wider variety of big data will unlock data relationships we haven't been able to see before. The digital environment has allowed us to gather more data about more interactions than ever

> **"** *Tomorrow's winners will be defined by the innovative strength of the customer experience analytics they use and implement.*

before. Think about reading a newspaper vs. visiting the newspaper's website. I am a faithful Wall Street Journal reader. What does the *Wall Street Journal* know about my experiences with the paper version? They know I am a subscriber and for how long. They know when I stop delivery. They know what credit card I use for the subscription. They know where I live. They don't know much else. They can have focus groups, do surveys, and get some samples of how people interact with the paper, but those methods are both costly and time consuming.

Now let's switch to the digital world. They know how many times I visit the website, iPad app, and iPhone app. They know what articles I see, what ads I see, how long my average session

is, and how many times I go back to the site or app to read the same issue. If they are measuring the customer experience and voice of the customer, they will know if I am satisfied with the content, navigation, functionality, and performance of the site. If they are using the ForeSee SessionReplay product, they will know how I scroll, how active I am with the page, how I navigate between articles, and how I search for information, where I got stuck, what I could and couldn't find, and they will be able to see exactly what I saw and replay the session I had with the WSJ.com site. If they are measuring the customer experience across all channels, they can understand the omnichannel experience as I move between channels and devices. The variety of data about interaction with the *Wall Street Journal* that you can learn from the digital versions is far-reaching and ever increasing in usage and value.

In the retail sector, the technology has not only increased the variety of the data available in the digital world but also in the physical world. There is technology that will allow me to track people as they walk through the store, where they spend their time, which aisles they go down, which sections of the store they ignore. They will know if usage patterns of the store vary by time of day, day of the week, or season.

The increased velocity in gathering and processing the data can turn what used to be a once-a-year project into an everyday analysis. This is critical for keeping up with ever-faster evolving consumers, markets, and competitors. In yesterday's analytics environment, we would be left to

deal with the sources of data independently. With today's multichannel, multidevice consumers, we would be missing the omnichannel experience. Being able to gather and process data quickly is a game changer. It allows us to analyze faster, make decisions faster, and get returns faster. Today's consumers have many choices, and we cannot afford to miss meeting their expectations for long before they go elsewhere. The increased velocity in today's big data environment gives us the ability to move faster and keep up with the dynamic nature of the consumer experience.

But for me, big data involves more than just the dramatic increase in volume, velocity, and variety; it also implies the ability to render into data many aspects of the world and business that have never been quantified before.

> " *Big data is driven by the three Vs: an increasing Volume of data with a wide range of Variety and gathered and processed at a higher Velocity.*

Since the beginning of time, researchers have had to work with relatively small amounts of data because the methods of collecting, organizing, storing, and analyzing information were very limited. Researchers reduced the information they studied to the minimum so they could examine it more closely and with some degree of ease. This is how statistics has worked until very recently.

Sampling was the key in this world. It is founded on the idea that within a certain margin of error, a well-trained analyst could infer something about a total population from a small subset, as long as the sample is chosen at random. This is highly useful when you are looking for gross impressions. But good luck making predictions when you want to know how left-handed, Hispanic men over 40 who have a postgraduate degree in the sciences will vote. Or what televisions, cars, or smartphones they want. When pollsters collect all the data, however, insights appear.

As a major McKinsey study indicated, the use of big data is becoming a key way for leading companies to outperform their peers. The study shows that big data will also help to create new growth opportunities and entirely new categories of companies. Opportunities will exist for companies that sit in the middle of large information flows where data about products and services, buyers and suppliers, and consumer preferences and intent can be captured and analyzed. Such companies include those that interface with large numbers of consumers buying a wide range of products and services, companies that enable global supply chains, companies that process millions of transactions, and companies that provide platforms for consumer digital experiences. They will be the big-data-advantaged businesses. Other businesses will flourish when they realize they have access to valuable pools of data generated by their products and services.

Early movers that secure access to the data necessary to create value are likely to reap the most benefit. From the standpoint of competitiveness and the potential capture of value, all companies need to take big data seriously. In most industries, established competitors and new entrants alike will leverage data-driven strategies to innovate, compete, and capture value.

Big data will also play an important part in small business. Several forces are democratizing big data, including affordable cloud computing storage, open-source software for processing large volumes of data, and big data sets being made available in the public domain. The stage is set for entrepreneurs and small-business owners to reap tremendous rewards from big data. I firmly believe that American businesses are on the cusp of a tremendous wave of innovation, productivity, and growth, as well as new modes of competition and value capture—all driven by big data.

Companies can use big data and more sophisticated analytics to create value in a number of other ways that will improve the customer experience. For example, big data allows businesses "to create highly specific segmentations and to tailor products and services precisely to meet those needs. Even consumer goods and service companies that have used segmentation for many years are beginning to deploy ever more sophisticated big data techniques, such as the real-time microsegmentation of customers to target promotions and advertising.

Also, sophisticated analytics can substantially improve decision-making, minimize risks, and unearth valuable insights that would otherwise remain hidden. Retailers can use algorithms to optimize decision processes such as the automatic fine-tuning of inventories and pricing in response to real-time in-store and online sales. In some cases, decisions will not necessarily be automated but augmented by analyzing huge, entire data sets using big data techniques and technologies rather than smaller samples.

In addition, big data will become a key basis of competition and growth for firms. These opportunities involve improving efficiency and effectiveness, enabling organizations both to do more with less and to produce higher-quality outputs, that is, increase the value added content of products and services. For example, companies can leverage data to design products that better match customer needs.

Data can even be leveraged to improve products as they are used. An example is a mobile phone that has learned its owner's habits and preferences, that holds applications and data tailored to that particular user's needs, and that will therefore be more valuable than a new device that is not customized to a user's.

One of my favorite sayings these days is that big data without great analytics is a waste of time. The trap of big data is that we can get a false sense of confidence. Gathering more data doesn't eliminate the need for accuracy, precision, and reliability.

We also don't want to fall into the trap of correlation over causation, just because we have a lot of data. A lot of data will create more correlated relationships, but that doesn't mean a causal relationship can be determined.

> *" One of my favorite sayings these days is that big data without great analytics is a waste of time. The trap of big data is that we can get a false sense of confidence.*

The right kind of data is even more important than the volume of data. All too often the big data advocates gather more and more of the same data. We need to complement the behavioral data with the attitudinal, or voice-of-customer, data. Bigger data that is only behavioral in nature will not give us the customer's perspective, and with today's multi-channel, multi-device consumer, that can be disastrous mistake.

The final trap to avoid is the bad metric trap. A designed limited metric like Net Promoter Score that has not evolved over time will not give us the insights and actionability we need to be successful. We need to apply the right analytics and the right metrics to make Big Data valuable.

Customer Experience Analytics is the new competitive battleground where companies will fight for the loyalty of the consumer. **Striving to continue to innovate your analytics is what will allow you to gain and keep that competitive advantage.**

Info

About ChangeThis

ChangeThis is a vehicle, not a publisher. We make it easy for big ideas to spread. While the authors we work with are responsible for their own work, they don't necessarily agree with everything available in ChangeThis format. But you knew that already.

800ceoread

ChangeThis is supported by the love and tender care of 800-CEO-READ. Visit us at 800-CEO-READ or at our daily blog.

Explore your knowledge further with KnowledgeBlocks, a new project from 800-CEO-READ that lets you turn what you know into knowledge you can use.