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Using Analytics for Better Decision-Making

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The amalgamation of an increasingly complicated world, the vast proliferation of data and the pressing desire to stay at the forefront of competition has prompted organizations to focus on using analytics for driving strategic business decisions. Business analytics is allowing managers to understand the dynamics of their business, anticipate market shifts and manage risks. Rather than “going with gut” when maintaining inventory, pricing solutions, or hiring talent, companies are embracing analytics and systematic statistical reasoning to make decisions that improve efficiency, risk management and profits.

Data and analytics are disrupting existing business models and ecosystems. Proliferation of new data sets and introduction of massive data migration capabilities are undermining existing information and technological silos. From using granular data to personalize products and services to scaling digital platforms to match buyers and sellers, companies are using business analytics to enable more faster and facts based decision making. In fact, studies show that data driven organizations not only make better strategic decisions, but also enjoy high operational efficiency, improved customer satisfaction, and robust profit and revenue levels. Recent research also shows that data-centered organizations are twenty three times more likely to acquire customers, six times as likely to retain those customers, and nineteen times as likely to be profitable as a result.

Analytical practitioners today have a vast array of analytical capabilities and techniques at their disposal. These range from the most fundamental techniques, “ descriptive analytics”, which involve preparing the data for subsequent analysis, to “predictive analytics” that provide advanced models to forecast and predict future, to the top-notch of analytics called “prescriptive analytics” that utilize machine based learning algorithms and dynamic rule engines to provide interpretations and recommendations. With their diverse use cases and applications, it is no longer a surprise that these techniques are now finding way into customer, workforce, supply-chain, finance and risk strategies at an organizational level.

Data is the new oil- and the best way for companies to access and understand it is to digitize their processes. Digitizing customer interactions can provide troves of information, which companies can feed into strategy, sales, marketing, and product development. Detailed and granular data can enable companies to micro-target their customers and to personalize their products and services. Further internal digitization generates data that managers can use to improve their operations, including routing and transportation, resource allocation and scheduling, capacity planning and manufacturing. These trends are also causing many companies to converge their “Business Intelligence” and “Operation Research” units on the common ground of predictive and advanced analytics. Both communities are now using statistical and mathematical techniques to attack strategic business problems and systemize decision making.

Data analytics, with its far reaching use cases and diverse applications, is now emerging as the keystone of strategic business decision making. From enabling businesses to make consumer oriented marketing decisions to helping them address key operational inefficiencies, analytics is radically changing the perception towards the importance of data. Advanced statistical models are furthering this cause by providing valuable insights out of unconventional data sets and by enabling companies to explore new business territories. The next few sections explore the vast and diverse opportunities that data and analytics bring to businesses today.

**Making most out of consumer patterns:**

In an increasingly customer oriented era, organizations have amassed wealth of consumer information and data. In order to remain competitive, it is imperative for organizations to use these consumer insights to shape their products, solutions and buying experiences. Research from Mckinsey suggests that organizations that are using their consumer behavior insights strategically are outperforming their peers by 85 percent in sales growth margins and by more than 25 percent in gross margins. Hence, it is important for managers to consider the strategic importance of consumer information.

A comprehensive and refined understanding of customers through thoughtful market segmentation can offer managers insightful narrative about buying habits and preferences. A telecom company, for instance, can use advanced and predictive analytical models to reduce customer churn and measure effectiveness of marketing campaigns. Similarly, an online retailer can understand its web presence by seeking answers to questions such as the mix of new and returning visitors, bounce rate and average session duration. Such questions offer crucial insights into what types of content over what channels and formats are likely to have greatest impact on key consumer segments.

In addition, pattern data can also generate valuable customer insights that can be used to direct marketing expenditures. An automotive seller, for instance, studied its consumers’ purchasing and behavioral history and discovered that majority of its high segment consumers were far more likely to rely on dealer distributors for product recommendations and less likely to be influenced by trade show exhibitions and marketing collaterals. This in turn helped the marketers to reallocate budgets. Therefore, business analytics enables managers to gain competitive intelligence on market conditions, target consumers more successfully and optimize processes.

**Using data to drive performance:**

While organizations spend considerable time analyzing consumer data and frontline monetization opportunities, it is equally imperative to focus on improving productivity and performance. Data and analytics can play a huge role in reducing inefficiency and streamlining business operations. For instance, reporting and analytical dashboards can identify data correlations and provide managers with detailed insights to perform cost valuations, peer benchmarking and pricing segmentation. Similarly, using analytics to measure key performance metrics across areas such as operational excellence, product innovation and workforce planning can produce calculated insights to solve complex business scenarios.

Business analytics can also improve the way organizations attract, retain and develop talent. For example, a consulting group in Asia recently decided to undergo a major restructuring process. As a part of this initiative, the leadership wanted to identify employees with high potential to succeed and gain a greater understanding into key indicators of performance. The analytics team began by streamlining data points such as professional history, education background, performance, age, marital status, and demographics. After running the collated data though multiple regression models, the team was able to identify the employee profiles that had best chances of succeeding in particular roles. The research and analysis also suggested the key roles that had the most impact on the company’s overall growth. As a consequence, the company restructured around the key functional roles and talent groups.

Another area where data analytics is providing a unique value proposition is Supply Chain. Supply chains are great places to look for strategic opportunities and advantages, partly because of their intricate nature and partly because of their significant contribution to a company’s cost structure. By putting analytics to use, companies can not only identify hidden inefficiencies in existing structures in order to generate greater cost savings but can also analyze significant supply chain investments and decisions by performing risk modelling and assessments. Managers can then dive deep into specific improvement opportunities such as inventory management, channel management, procurement and logistics.

**Managing risk through analytics:**

Organizations today are exposed to immense risk from structured data- such as databases and unstructured data- such as websites, blogs, and social media channels. By leveraging risk analytics, companies can find themselves in a better position to quantify, measure and predict risk. Managers need to see risk analytics as an enterprise-wide approach and should develop ways to pull data across different organization levels and functions into one central platform. By establishing a standard baseline for measuring and managing risk, companies will be able to incorporate risk considerations into their core strategic decision making process and predict likely scenarios.

Banks are leading this analytical space by discovering new ways to exploit transactional and behavioral consumer data. In fact, they are routinely going beyond the conventional structured information such as credit score reports and are also looking out for unconventional sources of information such as loyalty card consumer data, and government information. By capturing such massive data sets, banks are able to increase the accuracy, reach and predictability of their credit risk models. From identifying high risk payments before they are executed to predicting the likelihood of a customer defaulting a mortgage payment, risk models are leading the way by providing advanced and valuable insights. Therefore, companies should focus on enhancing and exploring operating business models.

Advanced data models will make risky business decisions more uniform, enhance the quality of data and provide greater agility to address unconventional data requirements. By becoming more risk intelligent, managers will be more adept at dealing with uncertainty and strategic at decision making.

**The conclusion:**

In this volatile environment of data driven disruption, business managers need to look through two lenses at the same time. Firstly, they have to identify high risk and rewarding opportunities such as entering new markets and changing existing business models. Secondly, they have to maintain their focus on including analytics into their core business decision making process. By embedding data analytics into their core strategy, business managers can streamline internal business processes, identify unfolding consumer trends, interpret and monitor emerging risks, and build mechanisms for constant feedback and improvement. Driving analytical transformations will thereby enable companies to gain competitive edge and stay at the forefront of digital disruption.

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