A Case Study of the Emergence of Data Analytics in Health Care

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EXECUTIVE SUMMARY

In the era of health care reforms, the executives and CEO of the SBC Company are faced with many questions. They wonder about the impact of these changes on their market share. They also wanted to determine the impact on prices they can charge for their services. The changes in the ways the health care will be bought were causing a rapid transformation in the behavior of the consumers. The executives determined that they need to focus on specific areas to keep abreast of all the changes. These will have a profound impact on the information technology implementation across the company. For example, the need for analyzing a large amount of data and data in real time was becoming acute among many departments; there was a need for different skillsets in the employees in almost all the departments across the company. These changes across the industry were presenting new and unique challenges to the executive team.

Keywords: Case Study, Covered California, Data Analytics, Health Care, Health Care Reform

ORGANIZATIONAL BACKGROUND

Health care reform is a significant change for the health care industry in generations. The CEO of the SBC Company was aware of the fact that these reforms will have an impact on his organization. He and his executive team were very interested in determining the exact nature and magnitude of this impact on their company. They knew that the health care industry will never be the same. The reform will bring more than 34 million additional individuals into the system.

After functioning for more than 25 years, SBC had to change its operations completely if it expected to survive all the changes its executives expected in the market. The market demanded that providers and payers rethink their business models. SBC was not a new company in this market. It was a premier health care insurance payer that had presence in California and Arizona. SBC served almost 3 million members. Since it is an integrated health care provider, it operates many hospitals and smaller medical facilities in major California metropolitan areas, for instance Los Angeles, and surrounding areas. In Arizona, it has two hospitals, one in Phoenix and another in Tucson. SBC employs more than 2,000 physicians, 5000 nurses, and approximately 3,000 employees in the medical services.

Besides being a prominent primary care provider, SBC is known for an exceptional service in internal medicine. It also provides special care in oncology, neurology, and cardiology. SBC also has contracts with several specialty clinics. These include obstetrics, gynecology, and urology clinics.

The Information Technology systems across the health insurance department and the health care facilities are well-connected. Once the customers sign-up for the insurance plans, they are given a unique identifier number that can be used across the complete system. As the patients use various health services in SBC, their medical records are updated. The physicians and other personnel across the hospitals and insurance have access to the data as soon as it is entered into the system.

The automation is not completed at SBC therefore some work is still done using paper records. The referrals to smaller specialty facilities are done using paper-based medical records. Patient's records are printed and sent to the external clinic. The specialty facilities manually update the records and give SBC back the report with the test results and services performed.

After 25 years of thriving, the organization was on the verge of the biggest change it had ever faced – the health care reform. The CEO and his executives desired to utilize the changing market conditions to their advantage. The health care reform represented many challenges but they were determined as a team, led by the visionary CEO, to turn the challenges into opportunities.

The group was divided into various functions. Figure 1 is the company's organizational chart.

Executives were aware that there was a general lack of experienced personnel with the right depth of knowledge in information technology strategy, analytics and change management. They knew that these were the very skillsets that were needed, if the company was going to be successful.

SETTING THE STAGE

The Patient Protection and Affordable Care Act (2010), also known as PPACA, brought new tsunami to the already-chaotic health care industry. Already swamped with the implementation of ICD-10 coding and meaningful electronic health record as required in the previous laws, the health care industry needed to implement more changes as required by the PPACA. Ever since the law was introduced and made its way through Congress, it has faced endless scrutiny. The requirement in PPACA that US Citizens are forced to purchase health insurance or face fines has become a lightning rod for multiple debates. The law became so controversial that 26 States challenged the ruling of the law in the Supreme Court as unconstitutional. When

Figure 1. SBC company organizational chart
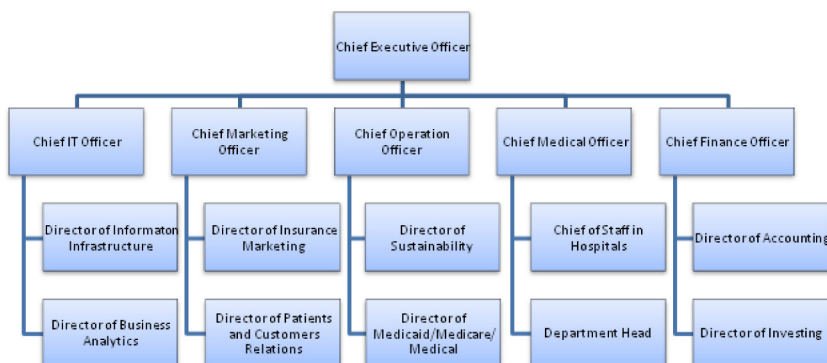
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