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**By**

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**ALY 6080 – Integrated Experiential Learning**

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**Introduction:**

Data is critical to the success of the company. I used this assignment as a research topic and read the article cited. I'd like to discuss a few points concerning data, its convention, worth, and how successfully it's used by healthcare companies like Keva Health. The software/platform/application that collects data from a mobile device, CRM, or web app, as well as how often it is used, are also considered. The burden of the application, transaction rate, and frequency of data access all determine how often it is used.

Customer data is extremely important, especially in healthcare, since it is more personal. Keva Health, for example, should be committed to its clients and establish stringent security regulations to avoid being harmed by security breaches. Before taking steps to protect their information, IT healthcare professionals in a company must first understand why hackers target healthcare data so frequently. As a result, judging the worth of data based on how often it is used might take on an unusual viewpoint.

This information is particularly valuable in terms of the product/service they are providing to people who want to be diagnosed using their real-time monitoring platform. Year after year, I notice an increase in healthcare data breaches, and it doesn't appear to be slowing down anytime soon. Those in the healthcare business who take the lead in establishing advanced data capabilities and encouraging data responsibility will not only gain a competitive edge but will also usher the industry into a new era. I accept as true that data is a strategic advantage, and that some businesses are appreciating their consumer data as an approach to influence their properties.

**Analysis:**

Data queries should be properly defined while taking into account the industry you're in and the rivals your company is attempting to surpass. It enables the audience to discover stuff that they enjoy. Analytics can help businesses figure out what they're doing right and what they're doing wrong.

Poor identification can lead to erroneous interpretation, which can have a direct impact on business efficiency, overall performance, and generate issues. Businesses can attain a near-certain conclusion by measuring rather than guessing. It also demonstrates what works and what doesn't in a variety of marketing areas, including content, social media, and email marketing.

Few steps that involve solving the business problems with data analytics are:

* What exactly are you hoping to show?
* What standard KPIs will you employ to assist you?
* What are the best data visualizations to use?
* What type of software will be useful?
* What steps can you take to establish a data-driven culture?
* What steps can you take to assure data quality?
* Which statistical analysis methods would you like to use?
* Where will you get your data?
* Which scales are appropriate for your various datasets?
* Who will be the eventual users of your findings?

The regression analysis statistical method is used to estimate the relationships and correlations between variables. It explains how the normal value of the dependent variable changes. Predictive and prescriptive analysis, in a nutshell, is focused on analyzing current and historical datasets to forecast future outcomes, including alternative scenarios and risk assessments. Regression analysis can be used to figure out which independent factors are linked to the dependent variable and to look into the nature of these connections.

In this project, I will be using few methods such as artificial neural networks, machine learning models, autoregressive integrated moving average, time series, and data mining techniques. Regression analysis is usually performed on historical data allowing me to learn from the mistakes and make improved decisions in the forthcoming.

A statistical tool for identifying movements and sequences throughout period is called as time series analysis. It is a collection of information facts that calculate the field across time. Analysts can estimate the attribute’s concentration that will vacillate in the coming days by looking at time-related trends. I will do some analysis on how the Air Quality Index has changed over the years and compare its results with the Emergency Room Visits.

For this project, I'll use descriptive, inferential, predictive, and prescriptive analyses. It involves defining, summarizing, and detecting patterns utilizing existing data and computations such as mean, range, minimum, frequency, median, mode, percentage, and maximum. For the sponsor I will be delivering the strategies to grow as a company and interpret the results in a pictorial representation manner via Tableau/ Power BI/ AWS Quick Sight tools.

The most advanced sort of analysis is prescriptive analysis, which integrates the data prior to the generation of a data model. It gives the recommendations on what to do and how to do in any given situation. It predicts and compares with the available test datasets. Hypothesis testing is mainly used to interpret the results. I will be dealing with some of the interesting models like Logistic regression, Decision Tree, and Random Forest Algorithms to see and analyze the behavior of the data attributes.

The predictive analytics makes expectations about future events based on previously collected data. It's all about "what's likely to happen." It's commonly used in sales analysis to forecast consumer behavior by combining demographic and buying data with various data features. The goal of root cause analysis, is to identify out why it occurred. It utilizes the statistical understandings to comprehend the aim via recognizing outlines in the data set to explain.

**Conclusion:**

As we've seen, each of these sorts of data analysis is linked to and reliant on the others to some extent. They all serve a different purpose and offer distinct perspectives. Moving from descriptive to predictive and prescriptive analysis necessitates a higher level of technical expertise, but it also provides greater insight for Keva Health company. I've thought about the meaning of data analysis and looked into the practical applications of data-centric analytics. One thing is clear: taking steps to organize data and make metrics work for the firm is a good thing. It is possible to convert raw data into action. This is the type of thing that will propel Keva Health to the next level.

**References:**

[1] Emily Stevens. (June 23, 2020). The 7 Most Useful Data Analysis Methods and Techniques. Retrieved from https://careerfoundry.com/en/blog/data-analytics/data-analysis-techniques