

## DS-650 Assignment 4

- Analytics is the process of gathering, evaluating, and using data to understand and improve function. Analytics is useful for improving efficiency, increasing profit, and in decision-making in any company.

Descriptive analysis is based on historical data. Perform statistical analysis and understanding of the data behavior from the past data of the company. For example, any small store or retailer performs descriptive analysis quarterly for finding the sales and profits.

Predictive analysis means predicting the future based on past and current data. Predictive analysis uses to do a prediction using the past data of the company as well as current data to predict the future. For example, a store uses predictive analysis to predict the next month with product sales more based on past sales data.

Prescriptive analytics, in contrast to predictive analytics, helps businesses make decisions that will raise profitability, boost brand recognition, or have other positive effects on the long-term success of their business. For example, any store or retailer applies prescriptive analysis to maintain the inventory of the store based on predictive analysis.

- User behavior analytics consists of collecting and analyzing data that demonstrates how your consumers interact with or behave on your website or mobile app  
You may monitor user behavior in many different methods, including analyzing session recordings, examining heat maps, and analyzing events and flows.  
The main reason to understand user behavior analytics is that you will learn what users actually do and how they interact with the website or application.
- Analytics offers perceptions and identifies patterns and trends in the following areas: the quantity of inventory necessary to satisfy demand while maintaining the required level of inventory. Operations managers can see the operations in real-time and comprehend the metrics with the aid of data analytics. Removing any bottlenecks helps to increase the effectiveness of your sales. Comparing big data to conventional models, supply chains can now proactively improve performance. In order to improve operational efficiency, effective inventory management that incorporates data analytics aids in overcoming the following issues: It reduces stockouts. It lessens the likelihood of product overselling. aids in hastening the order fulfillment procedure  
Supply chain analytics can assist a company in more accurately forecasting future demand by examining consumer data. An organization can use it to determine which goods can be reduced when they become less lucrative or to predict future client wants.

## References:

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Team, Smartlook. “User Behavior Analytics 101.” *Smartlook Blog*, 8 Sept. 2022, <https://www.smartlook.com/blog/user-behavior-analytics-101/> .

“What Is Supply Chain Analytics?” *IBM*, <https://www.ibm.com/topics/supply-chain-analytics> .