# Predictive Analytics: Better organization future

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*Abstract*— **Predictive analytics is very essential process for any organization. Making predictions is not an easy task. Based on historical and current data predicting future is predictive analytics. The goal is to develop a formula for making predictions about the dependent variable, based on the observed values of the independent variables**

*Keywords*— **predictive analytics, models, big data,tools**

## I. INTRODUCTION

Good predictions help organization future. There is situation where for decision maker it is not possible to select betterment options for future. Prediction is nothing but the guess about future situation. Prediction modelling helps to get a prediction instantly for whatever the need is. Good predictions and warnings save lives. It uses techniques such as artificial intelligence to create a prediction profile (algorithm) from past individuals. The model is then used by the user to solve the problem or get the opinion regarding problem. For making predictions it uses past as well as current data.

## II. IMPORTANCE OF PREDICTIONS

A prediction is forecasting future event which is uncertain.

Prediction can be useful to assist in making plans about possible developments. With the help of predictions future events or risks can be analysed. Making predictions will be helpful in following manner:-
1. Predictions and warnings can reduce damage and economic losses.
2. Predictions forecasts business opportunities.
3. Predictions provide guideline to investors.
4. Predictions will be useful for deciding to irrigate the
5. crop or not.
6. Predictions support clinical decisions.
7. Predictions forecast the outcome of sports.

## III. REQUIREMENT OF PREDICTIONS

It is very important and also difficult task to forecast future of organizations. It is not possible to provide exact details about the situation but definitely it will help to predict the future and assist to handle the situation. It is not like that always everything is available for forecasting. May be in the absence of few factors

predictions are made. Knowledge or expertise, relevant past and current data are the essential things for making predictions. For making predictions predictive modelling tools are also available in market such as MATLAB,MATHEMATICA etc. Predictive modelling software uses various techniques like machine learning, classification and statistical algorithms. So selecting correct technique or algorithm is also important for correct predictions.

## IV. PROCESS OF PREDICTIVE ANALYTICS

Predictive analytics consists of various steps such as defining project or problem ,collecting relevant data regarding project, analyse the data ,convert it into statistics and apply it to model. Once it is validated predictor will do the predictions by using it.
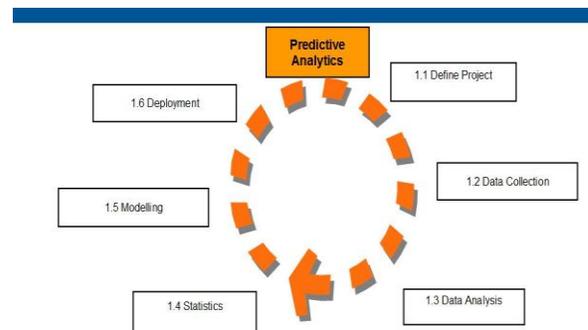


Fig. 1  Steps of Predictive Analytics

## V. PREDICTIVE ANALYTICS AND BIG DATA

Big Data can be characterized by three Vs volume, variety and velocity. Size of the database is in highly increased in zeta bytes or pet bytes .This data is generated by human interaction, social media, networking. Variety of data such as structured, semistructured and unstructured data. Data storage is capable to store image, video or xml and text files as there are many sources. Also as size is increased, there should be some mechanism to provide the required data within short span of time. The speed of processing data is an important factor when talking about concepts of Big Data.

Raw data does not provide any value in unprocessed form. Also in Big data environment we have to follow some steps for getting predictions such as collecting digital information. With data in hand, you can begin doing analytics.
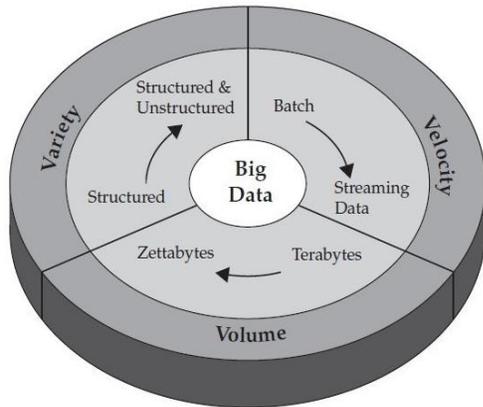


Fig. 2  Characteristics of Big Data

With the help of predictive analytics utilizes a variety of statistical, modelling, data mining, and machine learning techniques to study recent and historical data, thereby allowing analysts to make predictions about the future.

Advances in technology are finally making it possible to find the signal in the noise. Advances in data management enable you to leverage real-time, streaming data – structured and unstructured.

Advances in analytic capabilities enable you to predict outcomes, not just analyze the past. To embed insights right into your business processes at the point of impact. To embed optimization techniques into machinery. To identify anomalies that could represent fraud or an imminent system failure.The falling cost of infrastructure puts these technologies within reach today – making parallel processing, real-time computing, and mobility tools for all to use.

Bringing these technologies together is what will create competitive advantage for you. Technologies to ingest a variety, velocity, and volume of data bringing it into a form in which you can then determine what you need and what you don't.

The purpose of predictive analytics is not to tell you what will happen in the future no analytics can do that. Predictive analytics can only forecast what might happen in the future, because all predictive analytics are probabilistic in nature.

## VI.  CONCLUSION

For better data management organizations should use latest techniques .So that it will be easy for decision makers for retrieving required data in a timely manner from large data base

and variety of data.It will be easy for them for making predictions about the future.

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