**What is Big Data Analytics?**

Big data analytics is the frequently complex procedure of examining large and varied data sets -- or big data - to reveal data including hidden patterns, obscure connections, market trends and client inclinations that can enable organizations to make informed business decisions. Big Data Analytics gives analytics experts, such as data scientists and predictive modelers, the capability to break down Big Data from numerous and varied sources, including transactional data and other organized data.

Big Data has turned into a key differentiator in helping organizations prediction and make key decisions to stay focused and increase revenue, decrease risk and accomplish progress. Big data is playing key role in improving the efficiency in various sectors such as Travel, Healthcare, E-commerce, Retail, Manufacturing and many more.

**The Importance of Big Data Analytics**

Driven by particular analytics systems and software, high-powered computing systems, big data analytics offers different business benefits, including new income opportunities, more active marketing, better customer service, enhanced operational effectiveness and competitive advantages over competitors.

Big data analytics applications empower big data analysts, data scientists, predictive modelers, analysts and different analysis experts to break down developing volumes of organized transaction data, in addition to different types of data that are frequently left untapped by conventional business Intelligence (BI) and analytics programs. That incorporates a blend of semi-organized and unstructured data - for instance, internet clickstream data, web server logs, web-based social networking content, content from client messages and review reactions, cell phone records, and machine information caught by sensors associated with the internet of things.

**Big Data Analytics Technologies and Tools**

Unorganized and semi-organized data types usually don't fit well in customary data warehouses that depends on relational databases to structured data sets. Further, data warehouses will most likely be unable to deal with the handling requests posted by sets of big data that should be refreshed every now and again - or even continually, as in the case of real-time data on stock trading, the online activities of website visitor or the performance of mobile applications.=

Therefore, a large number of the organizations that gather, process and analyze big data turn to NoSQL databases, as well as Hadoop and its partner tools, including:

YARN: a group management technology and one of the key features in second- generation Hadoop.

MapReduce: It is software framework that enables developers to write programs that process enormous measures of unstructured data in parallel over a dispersed bunch of processors or stand-alone computers.

Spark: an open source, parallel processing framework that empowers operator to run large scale data analytics applications through clustered frameworks.

HBase: a column-oriented key/ value data store worked to keep running over the Hadoop Distributed File System (HDFS).

Hive: an open source data warehouse system framework for questioning and analyzing large data sets in Hadoop files

**Business Benefits of Big Data Analytics**

• Faster and better business choices

• Improved business execution with real time monitoring of events

• Increased product and service growth

• Competitive advantage the business

• Better identification of risk and active mitigation

• Enhanced client engagement