DATA ANALYTICS: NEW ERA FOR COMMERCE STUDENTS

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ABSTRACT
This study considers and studies the rise and increasing demand of the 'Data Analytics' field. This study is based on how and why commerce students have a future in this field and how they can really enter this field. This study also consists of some statistics that helps one to understand the scope, average salaries per role and so on.
KEY WORDS- Data *Analytics, Data storytelling, Data modelling.*

INTRODUCTION

Data has now become an important aspect of human life. From ancient times data has always helped human beings. There were many instances in past where data has helped humans.

Here are some examples: Today as the competition in the business world is increasing by leaps and bounds the companies are in need to improve their performance to cop up with the competition. Here comes the data into the picture. Data helps companies to find out :

1. Where are they lacking?
2. What are their weaknesses?
3. Data also helps in making important decisions and so on….

Data Analytics is nothing but analyzing the raw data and providing impactful insights to business. Today as huge data is being generated it has become important to analyze the data available. According to 'Economic times' 96% of companies are planning to add new staff for data analytics roles. The salary of an analyst in India ranges between 1.9 lakh Rs. to 11.4 lakh Rs. with an average salary of 4.3 lakh Rs. (1). This sector is expected to rise rapidly in coming years. The analysts are becoming more popular and are in heavy demand.

This sector when initialized only used to belong to I.T. students. But, after the introduction to 'E-Commerce', the commerce students have also found a way in it. Commerce students are taught more about How to market the goods, How to run the business, Investment, Identifying the trends and so on. Therefore, with all due respect to I.T. students, commerce students need to run this field instead of I.T. students.

OBJECTIVES

The main objectives of this study are:
1. To Understand what Data Analytics is.
2. To study the scope and the job opportunities for Data Analytics in India.
3. To study how to enter into this field and To study why analysts are demanded heavily.

DATA ANALYTICS

In today's rapidly growing world companies are generating vast volumes of data daily, in the form of files, transactional data along with various customer-related data. In addition to this, social media websites also generate enormous amounts of data. This data is further needed to be analyzed for deriving important business decisions. This data helps businesses in many ways. Businesses need this data to enhance their performance and to overcome the cut-throat competition around them.

Data analytics is an I.T. related field. Data analysis is a sub-part of 'Data Science', where analysis is made with the help of various tools such as Microsoft Excel, Tableau, SQL and so on along with some programming languages such as 'Python' and 'R'. Often 'Data- Analytics' and 'Data Science' are mixed and hence it is assumed that both are same. But, both fields are different from each other.
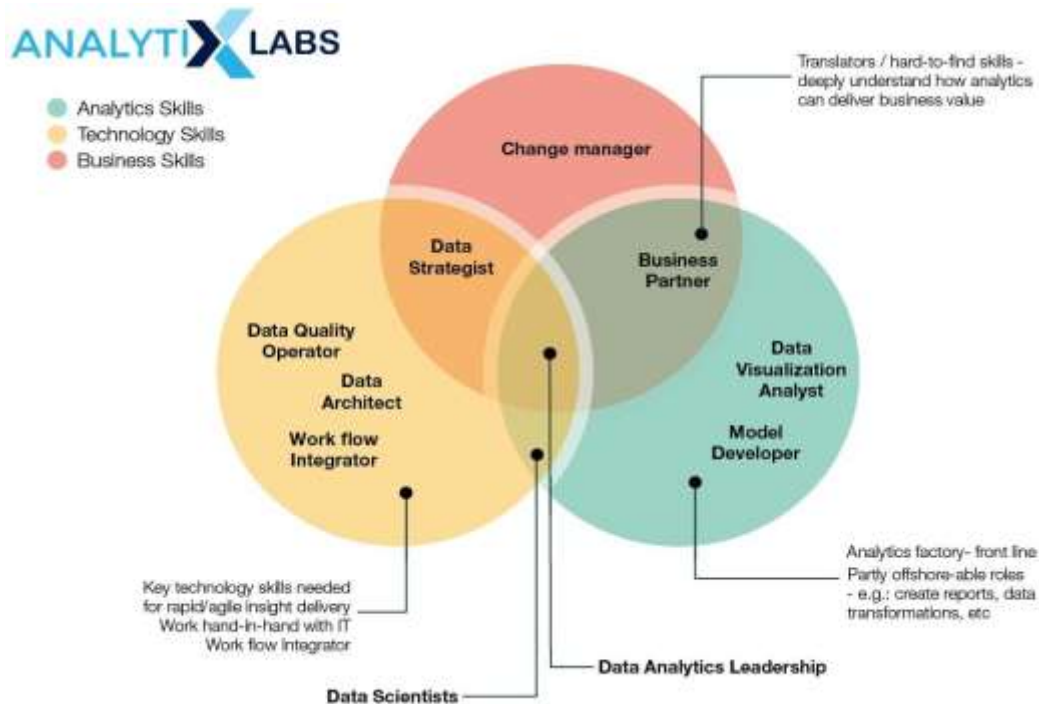
Data analytics deals with analyzing the available data, finding useful insights etc. whereas Data Science deals with creating prediction models, Machine learning etc. This field

looks for skills and patience in one. It means Data analytics field doesn't require a degree in 'Computer Science' field. One can enter into this field by doing an online/offline course in 'data analytics', related tools along with sufficient projects.

Following are the job profiles in Data Analytics field

The pie chart shows different job profiles in Data Analytics field that it has been based on the Analytics skills, Technology skills and Business skills. There are numerous job profile which can be emerged from Data Analytics field like Data scientist, Data strategist, Business partner etc. every job profile in this field are also overlapped with each other with adjoining filed of as Data Analytics Leadership.
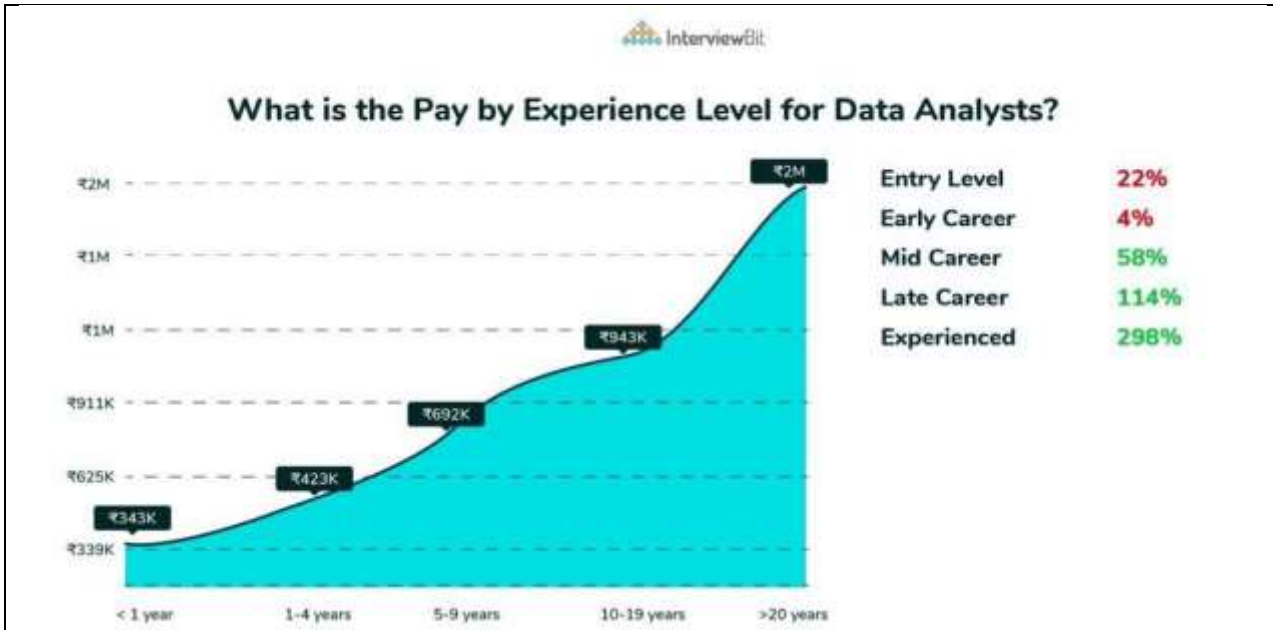
The scope of Data Analytics for Commerce students:
- As per the above information it only indicates that this field is related to I.T sector i.e. 'Engineering'.
- But in reality, to pursue a career in Data Analytics you don't always need to have a degree in 'Computer Science'. There are numerous examples where people from different sector have made their career in this field.

- One of the reasons why it suits commerce students more is, the data companies have is related to sales, consumer, purchase and related stuff.
- As we all are aware of the fact that in commerce, students are taught about how to run the business. Commerce students have thought about business from the very beginning. They have in-depth knowledge of business and they are the ones who understand it better than anyone else.
- That's why commerce students, if they learn the tools required, can analyze, find patterns and provide insights better than anyone else.
- The fact that I.T. students are more into technology and not into business related stuff, creating a big loophole as they might not be able to provide as impactful insights as that of commerce students. Following charts will explain the scope in more exact manner:
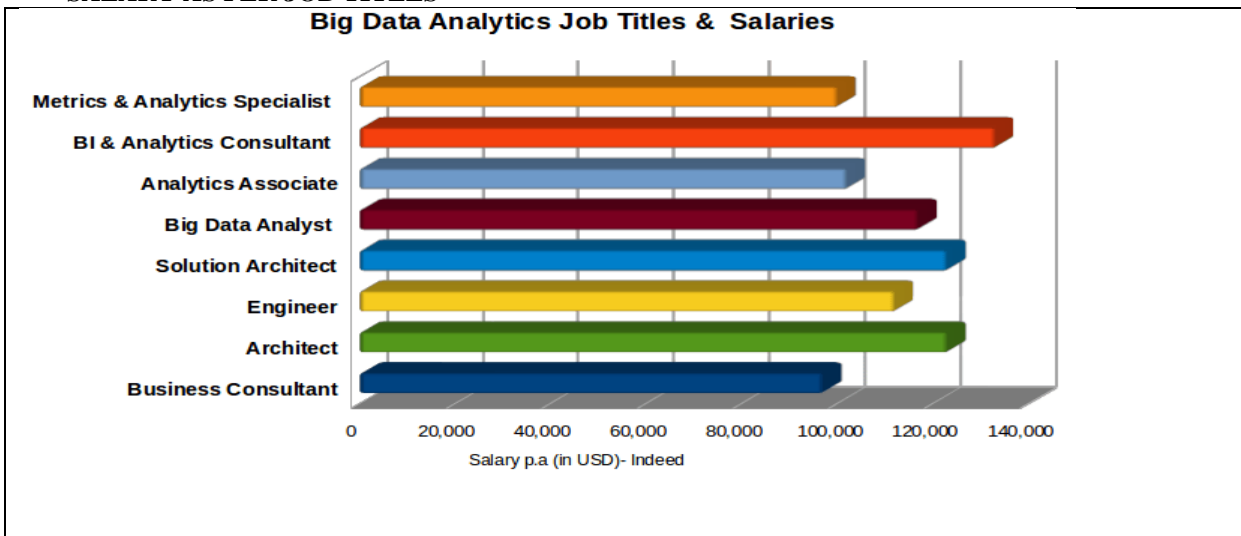
● **SALARY OF ANALYSTS AS PER EXPERIENCE**

The above chart illustrates Level of salary for Data Analysts as per changing in experiences in this field. Entry level Data Analysts gets salary approximately Rs.3 lakh to Rs. 5 lakh yearly. After receiving some experience in this field at mid-career stage, one can receive 58 % increases in their salary having Rs. 6 lakh to 10 lakh on annual basis. Later, in Late career stage your salary jumped from 58 % to 114% adjoining with growth in experience. And then, most experienced data analysts enjoy higher emoluments and packages from this field. Salary of Experienced Data analyst after 20 years could be doubled that is 298% upsurge in annual salary.
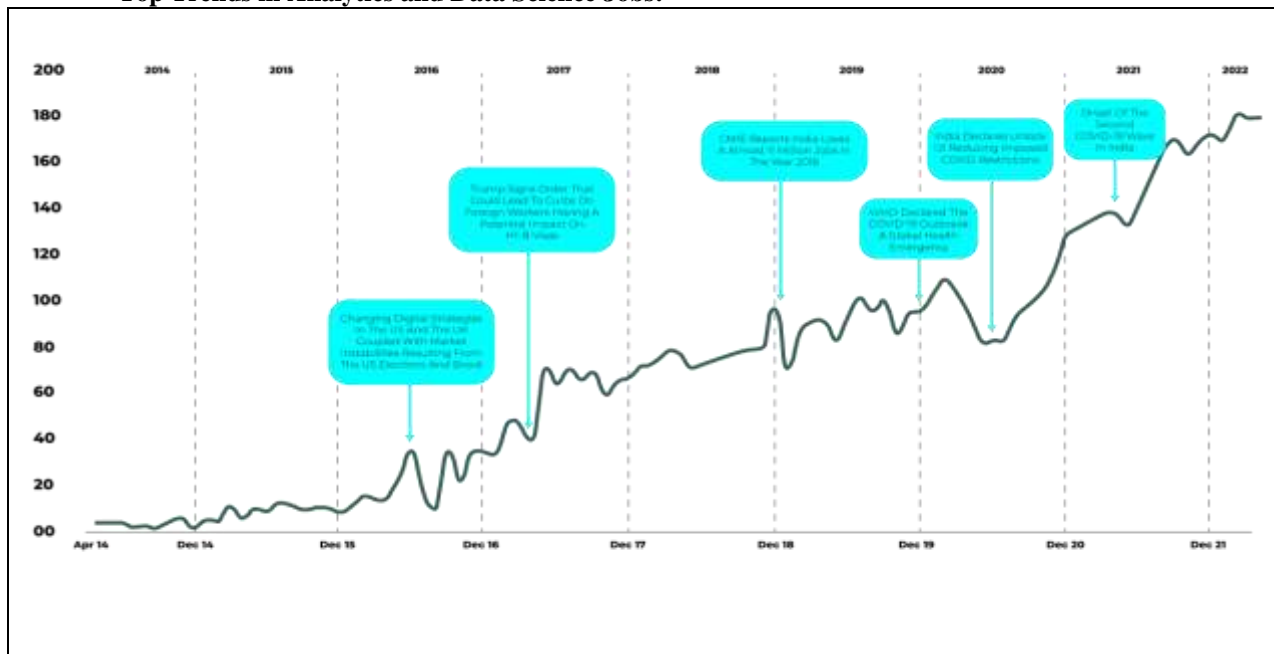
• **SALARY AS PER JOB TITLES**

Above Bar diagram illustrates information regarding Salary as per Job Titles in Data analytics field. Salary of Data Analyst varies from 20000 USD to 140000 USD p.a. as per Indeed source. BI and Analytics Consultant topped in this list for bagging larger amount of salary. Business consultant achieved lowest position in receiving

salary amongst different job profiles. The level of salary is also changing according to changes in various indirect and direct factors of Data Analytics. Some countries are also offering great amount of packages and other facilities for genuine person. If person interested to pursue extra knowledge and add on experience in this filed then he/she requires to acquire quantitative skills for presenting and demonstrating their skills. Some middle east countries like UAE, Oman, Saudi Arabia are also expanding their business analytics field as per changes in global competitive market.

After the year of 2000 new jobs in data analytics files is also emerged for fulfilling current market and business needs. The investment in this area from different sources such as FDI, FII, DII are also increases day by day. If business enterprises want to stand stable in global market they should focus on Data Mining field as well as Data discovery and Management filed. Corporate enterprises also generating large amount of Revenue through this sector because it totally depends upon multi dynamics structure and smooth functioning of business operations. Generally, in corporate sectors data played a big role carving out their strategic goals and utility for sustain in volatile market.

- **Top Trends in Analytics and Data Science Jobs:**

Period 2015 to 2016- From this period world economy was sharply destabilized due to economical changes was happening in the European continent resulting from Changing Digital Strategies in the USA and the UK couples with market instabilities Resulting from the US Elections and Brexit. This downfall events had largely affected on Data Science field and gave boost to emerge new era for searching out newer things in this sector.

Period 2016 to 2017- Trump Administration in this period has been ordered to curbs on foreign workers having a potential impact on H1-B visa. This decision had been leads to major loss in Labour economy. USA also affected through frequent conservative trumps policies. The demand for skilled and techno- savvy labour there were major gap in supply. That changes also leads to expansion of new area in Data Analytics and this gap was filed with insertion of Artificial Intelligence, Data Engineering, Consultancy etc. Corporate houses have also been changed their strategies according to changing demand in economy.

Period 2018 to 2021-In this phase CMIE reported that, India loses almost 11 million jobs in the year 2018 coupled with WHO Declares the COVID-19 outbreak a global health emergency simultaneously India imposed COVID restrictions. Every sector in India experienced major financial loss. Indian financial sectors, Banking Sectors, Insurance sector, Industrial sector, Engineering sector opened their operation for innovative steps. And this step would have been succeeding in Data Analytics field. New entrants interested to invest in Data field having increasing trend in FDI, FII, Promoters etc. onset of second COVID wave in India, major sectors in economy have slowly grasped their oxygen using data analytics.

DATA SCIENCE JOB BY SECTORS

1. Banking, finance and Insurance- Data Analytics is used to monitor financial market activity. Get consumer insight, predict customer behaviour, claims management and more. If we consider financial years from 2019 to 2022 this sector was topped in generating larger employment opportunities to commerce students. 50% growth rate has been recorded from the 2021 to 2022 year. Nearly about 26.6% has been created by Data analytics field.

2. E-commerce and Retail- Data Analytics has enabled improved shopping experience, reduced frauds, timely analysis of inventory and more. This sector generated 18.8% overall jobs from 2021 to 2022 year. Approximately 100% growth rate has been seen from its previous financial years. Today E-commerce sector is ready to surpass to banking sector.

3.Energy and Utility- With smart meters and analytics adoption in energy sector, there are more insight now available into energy consumption. There has been better consumption of utilities, efficient use of energy and more. Its share of open data science jobs by sector nearly 15.2% adjoining with effective growth rate has been seen from 2021 to 2022 by 75% in this sector.

4. Pharma and Health Care- Analytics has been used for faster identification and efficient analysis of healthcare information, keeping patient data, chemical and drugs content confidential, quality content parameter and more. Slower growth rate has been appeared since 2019 to 2022. This sector also performed decreasing growth rate from 2021 to 2022. This sector was not able to produce more jobs.

5. Media and Entertainment- Big Data and Analytics is being used for detailed sentiment analysis, track user interest, recommend shows based on one's interest etc. most popular sector for commerce student is entertainment. This section requires larger amount of skilled labour force carry out their innovative activities. Hence, larger amount of investment is also increasing day by day from domestic as well as international participants. From -50 to +50% growth rate has been achieved by this sector from previous one year from 2021 to 2022. Approximately 6.7% jobs have been generated by this field if we consider shares of open data science.

LIMITATION AND SCOPE
The major limitations of this study are :
1. This study is based on secondary data.
2. This study focuses on the time period before a certain time period, so the data may vary.
3. This study mainly focuses on the data analytics field in the perspective of 'Commerce' students.

HOW TO ENTER THIS FIELD

1. Excel Basic Intermediate – • Editing text and formulas • Excel function and lists • Worksheet and pivot table • Formatting data and data validation • Working with charts and Templates	6. Business Understanding- • Identifying the problem and target users • Understanding the domain expertise • Defining the expected outcomes • Defining success metrics • Identifying constraints, gaps and factors
2. Soft skills- • Adaptability • Communication • Critical thinking • Digital literacy • Time management • Take initiative • Team work • Life long learning • The art of negotiation • Self care • Emotional intelligence • Resilience	7. Data storytelling- It is about using human communication to help an audience develop a connection to that information. 8. Python Programming- • Syntax and Basics • Data structures and Algorithms • Pandas • Numpy • SciPy • Matplotlib
3. Maths and statistics- • Statistics and Probability • Algebra and Linear Algebra • Calculus and Discrete Mathematics	9. Exploratory Analysis and Modelling- • Regressions • Classification • Clustering
4. Data Ethics and Privacy- • Learn about Data Privacy • Understanding GDPR and CCPA • Understanding Bias • Responsible machine learning	10. SQL and Database • DBMS, Normalisation and ERD • SQL Syntax, data types, variables • Views, Triggers, Function PL/SQL • Injection and hosting
5. Data Preparation and Validation- • Data collection • Data discovery and profiling • Data cleansing • Data transformation • Data validation and publishing	11. Power BI/ Tableau • Querying and Transforming Data • Data Modelling • Calculation and formula • Reports and visualization • Dashboards

Step Wise Guide on How to Become a Data Analyst with no Experience-
Step1- Do a Data Analytics Certification Course
Step2- Build your Portfolio
Step3- Polishing your Existing Skills
Step4- Apply for an Internship or Entry Level Job.

CONCLUSION

The Data Analytics field is growing rapidly and thus has a bright future ahead. As a commerce student, 'Data Analytics' industry is a very fascinating industry. Data Analytics has a booming job market. Data Analytics is still under recognition and therefore there is a very good scope as well as there is less competition. As a student, you may not need to full-blown data scientist with a PhD and number of years experiences. You may

just need skill on data analytics and data engineering ability who
can help to create better data system.

SOURCES
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2. www.interviewbit.com
3. www.edureka.co
4. www.linktree/rk.learn
5. www.janbasktraining.com
6. www.geeksforgeeks.org
7. www.medium.com