

# ANALYSING THE KEY INFLUENCERS/DRIVERS OF DATA SCIENCE ON THE MULTIFARIOUS FUNCTIONS AND NATURE/TYPE OF BUSINESSES

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## ABSTRACT

*Using current tools and methods, data science examines huge amounts of data to uncover previously unknown patterns, extract useful information, and make business decisions. Data scientists use intricate machine learning algorithms to create prediction models. The present investigation focuses on how data science affects society. Fifty firms participated in the survey; their reactions were recorded and examined. Information science is a quickly developing area; Data scientists are employed by many businesses to boost profits and expand their operations. Advertising also plays a significant role in its influence on society. It was discovered that better product management and cost reduction were the most preferred factors even though the number of Data Scientists hired and their average pay has increased significantly. The advertising cost has also increased in revenue. As a result, Data Science has increased the company's success.*

*It is utilized for various purposes in almost every field today, particularly in security, healthcare, business, agriculture, transportation, education, prediction, and telecommunications.*

## INTRODUCTION

Today Information science takes into consideration the more exact direction and predicts development. Numerous businesses can effectively utilize their resources as a result of data science. Their contribution to enhancing the company's operations will be crucial.

Data science aims to find the most important datasets to answer the companies' questions and then expand on those datasets to extract additional data about behaviours, demands, and trends that managers use to make data-driven decisions.

Any business that can use its data effectively may benefit from it. From statistics and insights to workflows and hiring new employees to assist senior employees in making stronger decisions, data science is valuable to any organization in any industry. The world's driving organizations use Information Researchers' applications. Marketing predictions can be greatly improved with the help of data science. Making it easier to allocate time and money can help a company grow. It also helps predict future outcomes, which can help many big businesses avoid financial losses.

The development of recommendation engines that match a user's preferences with recommendations for what to buy, listen to, and the watch is made possible by artificial intelligence.

These algorithms may also analyze which suggestions did not pique the user's interest as a result of the machine learning process. This enables them to refine the proposals further, increasing conversions and maximizing ROI. Data science is changing a lot of industries. It's all about getting to know your customer and evaluating his actions by finding data correlations that could help predict market trends and orientations. The field of study known as data analytics is crucial and has demonstrated significant commercial potential. Since its inception, Data Analytics has helped numerous businesses and organizations realize their full potential.

The lessons learned from this course apply to all situations. The business has been greatly impacted by data science. They reduced the cost of advertising by helping to target the actual audience.

Organizations and businesses daily acquire a significant number of statistics and data in various formats.

Most of it used to be in customer feedback and suggestions, but data collection and use have become a priority as the digital age has progressed.

A few experts understood that the information assembled might be utilized for more than just following the organization's resources.

When the data was harnessed and organized, it was known that it could be used to gain valuable insight into the company's success, product sales, customer reviews, and current market trends.

With monstrous volumes of information now accessible, each industry is centred around information for the upper hand.

Data availability has sparked an increased interest in smartly using data to gain knowledge and useful information for the company's growth.

A new field of study known as data science has emerged as a new paradigm to deal with this enormous amount of data.

## METHODOLOGY

The present study included 50 directors from various industries. Their opinions have been documented and thoroughly investigated to determine whether or not data science is beneficial to businesses. Their perspective on other viewpoints has likewise been recorded. Experts in the relevant field are closely consulted before the factors are chosen. After consulting companies, a salary that is comparable to the average has been established.

Table 1 Factors responsible for making data science effective for business

Factors	No. of Companies Voted	Total no. of Companies	Percentage
Fast and Accurate	42	50	84%
Cost Reduction	48	50	96%
Managing Businesses Efficiently	39	50	78%
Making Better Products	46	50	92%
Predictive Analytics to Predict Outcomes	42	50	84%

According to the survey 96% companies believe that data science helps them to reduce the cost while 92% believes data science can help in making better product. The majority agreed that the data analysis is fast and accurate and can help in managing the business efficiently.

Table 2

Terms/Period	1990-2000	2001-2010	2011-2020
No. of Companies Hire at least 1 Data analyst.	7	16	47
No. of Companies with separate marketing unit with Data Scientist.	3	9	43
Average salary package	3.2 Lakh INR	4.9 Lakh INR	6.5 Lakh INR

The average salary for a data scientist has increased as compare to past 2 decades. In fact, almost all the companies have at least 1 data analyst who assist them in taking decision. 14% companies had data analyst during 1990-2000 but in 2011-2020, 94% companies have at least 1 data analyst. Initially Big companies hire data scientist but now even start ups take risk in investing in data scientist because of high ROI.

Table 3 Revenue spent on Digital Marketing by Companies

Period/Terms	More than 1 Lakh(Average)	More than 10 Lakh(Average)
1990-2000	7	1
2001-2010	16	26
2011-2020	11	37

The above table shows the increase of revenue spent by the companies on digital marketing.

### A. Impact of Digital Marketing on Society

- 1) Sales growth after hiring Data analyst- 96% responders agreed
- 2) Shift from offline Marketing to online Marketing 37 Companies
- 3) Increase in sale- 94% responders agreed
- 4) High ROI- 97% responders agreed

### B. Drawbacks

1. There are numerous projects aimed at assisting developing countries in utilizing analytics, but a lack of infrastructure and a restricted supply of data frequently means that they struggle to find success. This could be about to change.
2. A 25% likelihood of a data breach is too high for consumers who are increasingly concerned about the safety of their internet data. Organizations must reconsider their approach to consumer data in order to secure their customers' privacy. They require technology that allow for data science applications while also preserving data privacy.

## **CONCLUSION**

The conclusion is that data science can have a significant impact on business. The average salary package increments and the number of Data scientists hired have grown significantly. According to the study, the most favourable outcome of hiring a data scientist is a cost reduction. 97% of respondents voted for a high ROI. In comparison, 94% of respondents believe hiring a data analyst has increased sales. Thirty-seven businesses switched to online marketing from offline marketing. Each company's revenue spending has also increased. As a result, the study concludes that businesses undergoing digital transformation need Data Science because it enables them to target customers, comprehend their purchasing habits, and satisfy their needs.

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