



Individual Report – Business Intelligence (BI) Trends

ASSIGNMENT 1 - REPORT

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INTRODUCTION

"Business intelligence" (BI) refers to the frameworks, instruments, and techniques utilized to convert unprocessed data into meaningful insights. This approach aims to support business strategy. The technology-driven process of business intelligence (BI) thoroughly parses data to assist professionals and management in making operational choices. Business intelligence, according to Marjanovic (2012), is the capacity to identify patterns in vast amounts of unstructured data, evaluate them, and provide insights for tactical use inside an organization. In the modern-day business world, business intelligence is an extremely valuable tool. A world in which data is ubiquitous makes it necessary to make judgments that are properly informed. As a result of the fact that twelve percent of firms are experiencing issues with governance and the quality of their data, business intelligence projects are quite important. Approximately ten percent of companies have expressed the belief that inadequate field training is a barrier to the use of business intelligence. This study has an emphasis on the operational challenges that are associated with the utilization of applications for business information. According to DaSilva (2018) and Williams (2016), businesses that do not implement strong business intelligence strategies face the risk of making terrible judgments and missing opportunities.

Due to an argument that of an operational manager that is responsible for making strategic decisions daily, this study investigates the significance of incorporating new business intelligence (BI) trends, tools, and applications into a contemporary corporate setting. This report examines the future of business intelligence (BI) and how it might be able to assist in decision-making. The main objective of this report is to make it easier to integrate new business intelligence (BI) systems. This report shows that recent advancements in business intelligence have the potential to enhance the creation of strategies, the resolution of problems, and the efficiency of operations.

SHAPING THE FUTURE BY APPLYING BI TECHNOLOGY

Rapid technology breakthroughs and a rising reliance on data-driven decision-making are transforming the business intelligence (BI) landscape. The necessity of business intelligence in next-generation corporate strategy is shown by the anticipated growth and value expansion in the market. This expansion demonstrates that business intelligence is a multifaceted instrument for strategic data utilisation beyond just numbers. Rather, it illustrates how many businesses across industries employ business intelligence.

Several companies utilize business intelligence technologies and solutions with success. Netflix and Amazon widely use BI to enhance the user experience. For these companies, data analytics has improved operational effectiveness and provided tailored recommendations. Recall that there are obstacles on the route although business intelligence (BI) technologies have improved consumer insights and operational efficiency, they also raise privacy and data security issues. Businesses must balance data use, security, and ethics to succeed.

Current business intelligence technology must be utilized to solve the company's problems. Useless data, weak governance, and insufficient field training make business intelligence (BI) implementation difficult. These difficulties require extensive training and the latest business intelligence (BI) innovations like automated data governance and quality control solutions. AI-driven data governance solutions can improve data quality and compliance. Personal training can also help personnel use business intelligence technology.

Operational managers require the most recent business intelligence software, technologies, and trends for several reasons. It simplifies smarter, more flexible decision-making, which is crucial in today's frenetic corporate climate. Data silos and poor data quality are eliminated, giving decision-makers accurate and current information. And importantly, it cultivates an organizational culture that is data literate and empowers all staff members to use data in decision-making. Outstanding business intelligence

integration is necessary for corporate success in the future. Businesses who can adjust to these trends and technology will be more equipped for the digital era as the industry develops.

THE USE OF BI FOR EFFECTIVE DECISION-MAKING

TREND 1: REAL-TIME DATA ANALYTICS

Corporate decision-making is being revolutionized by real-time data analytics. Decision-makers can react to changes in the market, shifts in consumer behaviour, and improvements in operational efficiency more quickly because to this tendency. It accomplishes this by continually granting access to fresh data. Retailers like Zara have benefited from real-time data by streamlining their inventory control and supply chain. They have thereby achieved previously unheard-of speeds and reduced the time needed for fashion trends to adjust. Real-time data, however, necessitates a strong data processing infrastructure and presents questions around data privacy and accuracy (Hemachandran et al., 2022).

TREND 2: MACHINE LEARNING FOR PREDICTIVE ANALYTICS

A further development in business intelligence is the use of machine learning (ML) in predictive analytics. By analysing past data, machine learning algorithms predict client trends, behaviour, and hazards. This enables companies to take proactive measures. By predicting credit risk, machine learning assists financial institutions in assessing loan applications. This lowers financial risks and increases operational efficiency. It takes specialized knowledge and continual data analysis to create and run effective machine learning models (Indumathi et al., 2022).

TREND 3: PREDICTIVE ANALYTICS

Description and Justification: Data from history, statistical methods, and machine learning were the three components that are utilized in predictive analytics to forecast future events. Businesses are able to better anticipate events, behaviors, and trends with the help of this trend in business intelligence, which enables them to take effective preventative measures. By utilizing predictive analytics to manage inventory in accordance with projected demand, Walmart can reduce the number of stockouts and overstocks that occur (Chen et al., 2022).

Positive Consequences: Personalized goods enhanced consumer satisfaction, operational effectiveness, and decision-making.

Negative Consequences: Two essential elements of prediction accuracy are data quality and model applicability. This can occasionally lead to inaccurate estimations and bad decisions.

TREND 4: DATA VISUALIZATION TOOLS

Description and Justification: Discovering trends, patterns, and individual events in large, complex data sets is made easier with the use of data visualization tools. Businesses need Tableau and Power BI to make quick, data-driven decisions. Spotify uses data visualization to track user preferences and interactions. This aids the business in altering advertising and playlist suggestions (Lousa et al., 2019).

Positive Consequences: Improved team insight transfer, quicker decision-making, and improved data comprehension are just a few advantages of this approach.

Negative Consequences: Visualizations which were not properly designed or evaluated often overstate the data and lead to inaccurate conclusions.

TREND 5: NATURAL LANGUAGE PROCESSING (NLP) IN BI

Description and Justification: BI customers can conduct searches and employ NLP to engage with data more readily. NLP enables natural language processing. This tendency is shown by ThoughtSpot's simple English queries' insights. This shows tendency. Wu et al. (2021) suggest that data analytics clients can learn without knowing data science. Despite their lack of tech skills, and that is true.

Positive Consequences: Faster insights, the use of non-technical divisions, and easier access to corporate information tools.

Negative Consequences: Natural language processing (NLP) can incorrectly interpret the consumer's intent when responding to complex queries, leading to the provision of pointless or inaccurate answers.

CONCLUSION

This report examined the rapidly growing field of business intelligence (BI) and its importance to modern organizations. We solved data governance issues and increased operational effectiveness by leveraging real-world examples of how business intelligence (BI) trends, tools, and apps affect strategic decision-making. Business intelligence innovations need to be used. Businesses require current business intelligence tools and solutions to succeed in data-driven environments. Some say "corporate intelligence" drives organizational development. These tools promote data literacy and decision-making for all enterprises. In the intensely competitive corporate world, innovative business intelligence (BI) solutions will be vital because they can extract relevant conclusions from vast amounts of data. Having these answers will simplify your tough choices which helps you decide better.

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