Montage

bi | DEPARTMENT OF BUSINESS INTELLIGENCE

UNLOCKING INSIGHTS, SHAPING FUTURES

Success of business depends on type of informed decisions taken by managers.

Dive into the first edition to explore the dynamic world of data and analytics, discover industry trends, explore educational opportunities, and learn about our vision to mold future-ready leaders. Stay informed, stay inspired, with Montage.

■ MBA IN BUSINESS INTELLIGENCE

Forge strategic leaders proficient in data analytics for informed decision-making.

■ P.G. DIPLOMA IN DATA ANALYSIS

Master the art of extracting insights from data to drive business decisions.

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FROM THE DESK OF
HON. VICE CHANCELLOR

The sudden resurgence of the COVID-19 pandemic's second wave has brought unprecedented challenges to the world, testing our resilience and humanity. However, it is in times of crisis that the true spirit of humanity shines through, enabling us to make progress and emerge stronger than ever before.

Over the past few months, our country has faced a relentless wave of infections, reminding us of the importance of unity in fighting an invisible enemy. This crisis has called for principles of openness, inclusiveness, and cooperation, urging us to stand together with mutual respect and support for one another.

Our frontline and essential workers have been the heroes of this crisis, risking their lives to keep our communities safe and functioning. Their selflessness and dedication have been a beacon of hope in these challenging times. Additionally, ordinary people have shown extraordinary acts of kindness, supporting each other and demonstrating solidarity in the face of adversity.

The pandemic has been a true test of our character, revealing the strength of our spirits and our capacity for compassion and resilience. While we have managed to overcome the worst of the second wave, we must remain vigilant and continue to practice safety measures to prevent future outbreaks.

Let us all do our part by practicing necessary precautions, getting vaccinated, and supporting each other through these challenging times. Together, we can overcome this pandemic and emerge stronger as a global community.

With this I would also like to extend my best wishes to all the readers and congratulate the Department of Business Intelligence on the successful release of the inaugural edition of Montage, their flagship newsletter. A special appreciation to the Editorial team for their hard work, and I wish them all the best for future endeavours. Let's spread positivity!

Best Wishes,
Prof. Dr, Himanshu Pandya,
Vice Chancellor, Gujarat University.

FROM THE DESK OF DIRECTOR

It gives me immense pleasure to address all of you through this very first edition of Montage, the official newsletter of Department of Business Intelligence, BKSPMS, which serves as a testament to the collective efforts and achievements of our college community. As the Director of this prestigious institution, I stand here with a heart full of pride and gratitude for the journey we have undertaken together. This newsletter marks an exciting new chapter in our department's communication efforts, providing us with a platform to share insights, updates, and achievements.

In this initial year of the department, we have grown not only in terms of infrastructure but also in reputation and academic excellence. We have nurtured an environment that fosters learning, innovation, and personal growth. Our commitment to providing a holistic education experience has resulted in nurturing students who are not just skilled professionals but also responsible global citizens.

As you flip through the pages of this newsletter, you will get a glimpse of our journey as a department from the very beginning, including various national level seminars and joyful celebration of the events. Most importantly, it celebrates the hard work and perseverance of our students, who are the true embodiments of our college's values and ideals. I believe that this newsletter will not only foster a sense of community within our department but also showcase the innovative work being done by our team.

I would like to extend my gratitude to the editorial team for their hard work in putting together this newsletter. I encourage all of you to engage with the newsletter by sharing your feedback, ideas, and contributions for future editions.

I am confident that this newsletter will be a valuable resource for our department, helping us to stay connected and informed. Thank you for your continued dedication and support.

Best Wishes,

Prof. (Dr.) Prateek Kanchan
Director and Professor
B.K School of Professional and Management Studies,
Gujarat University.

FROM THE DESK OF
CHIEF EDITOR & HEAD

I am delighted to welcome you to the first edition of Montage, the official Newsletter of Department of Business Intelligence Newsletter. As the Head of the department, and also serving as the Editor for this publication, I am excited to share with you the latest updates, insights, and achievements from our department.

In this edition, you will find a range of articles, from informative seminars, student features, and glimpses of mesmerising celebrations. Our goal with this newsletter is to create a platform for sharing knowledge and fostering a sense of community within our department.

I would like to express my sincere appreciation to our editorial team for their hard work in putting together this newsletter. I also want to thank all our contributors for their valuable contributions.

I encourage all of you to engage with the newsletter by providing feedback, suggestions, and contributions for future editions. Your input is invaluable as we strive to make this newsletter a meaningful and informative publication for our department.

Thank you for your support, and I hope you enjoy reading this inaugural edition of the Department of Business Intelligence Newsletter.

Regards,

Dr. Mamta Brahmbhatt
Associate Professor & Head
Department Business Intelligence,
B.K School of Professional and Management Studies,
Gujarat University.

ABOUT
Gujarat University

The Gujarat University was conceived in the nineteen twenties in the minds of public-spirited and learned men like Gandhiji, Sardar Patel, Acharya Anandshankar B. Dhruva, Dada Saheb Mavlankar, Kasturbhai Lalbhai and many others. However, the University could come into existence only after the achievement of independence. In 1949, the University was incorporated under the Gujarat University Act of the State Government 'as a teaching and affiliating University.' This was done as a measure of decentralisation and reorganization of University education in the then Province of Bombay.

During the course of its life of more than five decades, the University has seen the establishment of seven more Universities which were carved out of the jurisdiction of the Gujarat University, viz., Sardar Patel University, Saurashtra University, Bhavnagar University, South Gujarat University, Gujarat Ayurveda University, Gujarat Agricultural University and North Gujarat University. Even then, the Gujarat University is the largest university in the state catering to the needs of higher education of more than two lakh students scattered over 235 colleges, 15 recognised institutions and 24 approved institutions. There are 34 Post-Graduate University departments and 221 P.G. Centres.

Gujarat University is an affiliating University at the under-graduate level, while it is a teaching one at the post-graduate level. Indeed, the responsibility for post-graduate instruction has been statutorily given to the University, and accordingly it has evolved a plan of co-ordinated instruction under the direct control and supervision of the University so as to ensure efficient and diversified instruction. An important feature of this University is the system of external examinations in the Faculties of Arts and Commerce, both and under-graduate and post-graduate levels. The external examinations were introduced with a view to enabling working students and the others who could not afford the high cost of university education to realize their dream.

Gujarat University has developed phenomenally in the last 71 years to be recognized as a premier University in the country today. It provides education in one of the widest range of disciplines to about two lakh students.

ABOUT BKBI

Data analytics is commonly described as a process of examining data sets to draw conclusions on the basis of information available in them with the help of various software or specialized systems. Business Analytics is a broader concept and it includes the application of data analytics for making decisions in the organization. It focuses on Reports, KPIs (Key Performance Indicator) and trends and does descriptive analysis. Analytics nowadays has become a very crucial part of commercial industries as it enables a more informed business decisions based on scientific data and research which improves company's operational efficiency, customer service, ensures competitive advantage and increase revenues.

It is extensively used in industries like financial services, retail, healthcare, manufacturing, energy, gas & oil, social media, gaming, ecommerce, sports, etc. The course comprises of Computer simulation, optimization, statistics, decision analysis, artificial intelligence, data mining and visualization, predictive modeling, marketing, supply chain, applications in finance and many more. Department of Business Intelligence offer courses like Ph.D., Master courses, Certificate and PG Diploma Courses related to Data analysis. Department of Business Intelligence is a department run under the B.K. School of Professional and Management Studies.

The department offers full time MBA programme namely Considering the industry needs various departments such as Maritime, Department of Business Intelligence and Department of Public Policy and Governance has been introduced. The Department of Business Intelligence aims at cratering the needs of young aspirants to get educated and upgrade with the demands of the corporate houses. The department seeks to build industry ready professionals by offering diversified contemporary course capable of meeting the turbulence of time. The department aims at shaping, enhancing and sharpening the skillset of student community. The department has a strong focus on developing a contemporary curriculum consistent with latest trends in the industry.

Vision

Our department envision to mould future ready managers to extract insights for business efficiency We aim to create a strong foundation of knowledge, skills, values and talent among the young brains associated with us.

Mission

Our mission is to shape, enhance and sharpen the educational skills of young minds by giving quality education, research and industry engagement.

The department has:

A contemporary curriculum taught by highly trained professionals who cultivate a culture of looking at data meaningfully Trained people to educate about tools and software's required by business analyst to present their ideas to create differentiation Regular industry engagements to keep aspirants informed about latest happenings and expectations so as to stay upgraded.

MBA IN BUSINESS INTELLIGENCE

What is MBA in Business Intelligence?

Embark on an enriching academic journey with our MBA in Business Intelligence.

This program seamlessly integrates cutting-edge analyticswith strategic acumen,empowering you to navigate the intricate landscape of modern business. Immerse yourself in the art of turning data into actionable insights and emerge as a skilled navigator of the business intelligence terrain.

Join us in sculpting the future of informed decision-making, where your expertise will be the cornerstone of success in the dynamic world of commerce.

Career Opportunities

- **Data Engineer**
- **Data Scientist**
- **Business Analyst**
- **Data Analyst**
- **Business Intelligence Executive**
- **Marketing Analytics Manager**
- **Product Manager**
- **Sales Operations Manager**
- **Database Administrator**
- **Performance Analyst**
- **Financial Analyst**
- **Customer InsightsAnalyst**
- **Risk Analyst**
- **Supply Chain Analyst**

Why should you pursue a career in it?

An MBA in Business Intelligence not only hones sought-after skills but also primesyou for high- demand placements.

The versatile nature of Business Intelligence expertiseensures relevance across industries, providing diverse placement opportunities. Competitive remuneration, clear career growth paths, and strategic decision-making roles enhance the appeal of this specialized MBA. Industry connections, internships, and corporate partnerships further boost your chances of securing well-compensated and fulfilling placements, making it a strategic investment for a successful career.

Scope of MBA in Business Intelligence

The MBA in Business Intelligence offers a distinctive combination of managerial acumen and data-driven insights, distinguishing graduates and opening doors to exceptional career prospects. This innovative program equips students to meet the dynamic demands of the corporate world, cultivating their abilities as proficient analysts and visionary leaders. Opting for this MBA isn't merely about enhancing skills; it's a strategic move towards a successful career, where this unparalleled fusion paves the path to achievement.

WHAT IS BUSINESS INTELLIGENCE ?

Transforming data into business insights

Business intelligence (BI) is a set of strategies and technologies for analyzing business information and transforming it into actionable insights that inform strategic and tactical business decisions.

Business intelligence definition

Business intelligence (BI) is a set of strategies and technologies enterprises use to analyze business information and transform it into actionable insights that inform strategic and tactical business decisions. BI tools access and analyze data sets and present analytical findings in reports, summaries, dashboards, graphs, charts, and maps to provide users with detailed intelligence about the state of the business.

The term business intelligence often also refers to a range of tools that provide quick, easy-to-digest access to insights about an organization's current state, based on available data.

Benefits of BI

BI helps business decision-makers get the information they need to make informed decisions. But the benefits of BI extend beyond business decision-making, <u>according to data visualization vendor Tableau</u>, including the following:

- Data-driven business decisions: The ability to drive business decisions with data is the central benefit of BI. A strong BI strategy can deliver accurate data and reporting capabilities faster to business users to help them make better business decisions in a more timely fashion.
- Faster analysis and intuitive dashboards: BI improves reporting efficiency by condensing reports into dashboards that are easy for non-technical users to analyze, saving them time when seeking to glean insights from data.
- Increased organizational efficiency: BI can help provide holistic views of business operations, giving leaders the ability to benchmark results against larger organizational goals and identify areas of opportunity.
- Improved customer experience: Ready access to data can help employees charged with customer satisfaction provide better experiences.
- Improved employee satisfaction: Providing business users access to data without having to contact analysts or IT can reduce friction, increase productivity, and facilitate faster results.
- Trusted and governed data: Modern BI platforms can combine internal databases with external data sources into a single data warehouse, allowing departments across an organization to access the same data at one time.
- Increased competitive advantage: A sound BI strategy can help businesses monitor their changing market and anticipate customer needs.

Business intelligence examples

- Reporting is a central facet of BI and the dashboard is perhaps the archetypical BI tool. Dashboards are hosted software applications that automatically pull together available data into charts and graphs that give a sense of the immediate state of the company.
- Although business intelligence does not tell business users what to do or what will happen if they take a certain course, neither is BI solely about generating reports. Rather, BI offers a way for people to examine data to understand trends and derive insights by streamlining the effort needed to search for, merge, and query the data necessary to make sound business decisions.
- For example, a company that wants to better manage its supply chain needs BI capabilities to determine where delays are happening and where variabilities exist within the shipping process. That company could also use its BI capabilities to discover which products are most commonly delayed or which modes of transportation are most often involved in delays.
- The potential use cases for BI extend beyond the typical business performance metrics of improved sales and reduced costs.

Tableau and software review site G2 also offer concrete examples of how organizations might put business intelligence tools to use:

- A co-op organization could use BI to keep track of member acquisition and retention.
- BI tools could automatically generate sales and delivery reports from CRM data.
- A sales team could use BI to create a dashboard showing where each rep's prospects are on the sales pipeline.

Business intelligence vs. business analytics

Business analytics and BI serve similar purposes and are often used as interchangeable terms, but BI should be considered a subset of business analytics. BI focuses on descriptive analytics, data collection, data storage, knowledge management, and data analysis to evaluate past business data and better understand currently known information. Whereas BI studies historical data to guide business decision-making, business analytics is about looking forward. It uses data mining, data modeling, and machine learning to answer why something happened and predict what might happen in the future.

Business intelligence is descriptive, telling you what's happening now and what happened in the past to get your organization to that state: Where are sales prospects in the pipeline today? How many members have we lost or gained this month? Business analytics, on the other hand, is predictive (what's going to happen in the future?) and prescriptive (what should the organization be doing to create better outcomes?).

This gets to the heart of the question of who business intelligence is for. BI aims to deliver straightforward snapshots of the current state of affairs to business managers. While the predictions and advice derived from business analytics requires data science professionals to analyze and interpret, one of the goals of BI is that it should be easy for relatively non-technical end users to understand, and even to dive into the data and create new reports.

Business intelligence systems and tools

A variety of different types of tools fall under the business intelligence umbrella. The software selection service SelectHub breaks down some of the <u>most important categories and features</u>:

- **Dashboards**
- **Visualizations**
- **Reporting**
- **Data mining**
- **ETL (extract-transfer-load — tools that import data from one data store into another)**
- **OLAP (online analytical processing)**

Some of the <u>top BI tools</u> include:

- **Domo**
- **Dundas BI**
- **Microsoft Power BI**
- **MicroStrategy**
- **Oracle Analytics Cloud**
- **Qlik**
- **SAS**
- **Sisense**
- **Tableau**
- **Tibco**

Business intelligence jobs

Any company that's serious about BI will need to have <u>business intelligence analysts</u> on staff. BI analysts use data analytics, data visualization, and data modeling techniques and technologies to identify trends. The role combines hard skills such as programming, data modeling, and statistics, with soft skills like communication, analytical thinking, and problem-solving.

Even if your company relies on <u>self-service BI tools</u> on a day-to-day basis, BI analysts have an important role to play, as they are necessary for managing and maintaining those tools and their vendors. They also set up and standardize the reports that managers are going to be generating to make sure that results are consistent and meaningful across your organization. And to avoid garbage in/garbage out problems, business intelligence analysts need to make sure the data going into the system is correct and consistent, which often involves getting it out of other data stores and cleaning it up.

Business intelligence analyst jobs often require only a bachelor's degree, at least at the entry level, though to advance up the ranks an MBA may be helpful or even required. As of January 2023, the <u>median business intelligence salary</u> is around $72,000, though depending on your employer that could range from $53,000 to $97,000.

Reference : https://www.cio.com/article/272364/business-intelligence-definition-and-solutions.html

P.G. DIPLOMA IN DATA ANALYTICS

Department of Business Intelligence offers short term courses of one year Post Graduate Diploma Programmes. The target of the programmes is those persons who want to increase their employability or improve their professional skills but did not have the opportunity to do so earlier in a formal manner.

The focus of the programmes will be to impart the required knowledge and skills. These programmes will be conducted during the evening hours so that employed persons or students pursuing other programmes can also join without affecting their normal pursuits. In other words, even Post Graduate students pursuing other full time programmes can also join any of these programmes

GLIMPSES OF TOPICS TO BE COVERED IN DIPLOMA COURSE IN DATA ANALYSIS

Introduction to Research Methods:-

Introduction to Research and Problem Formulation, Research Process and Research Design, Sampling Theory, Data Collection, Preparation, Analysis And Reporting

Basics of statistics:-

Sample And Population, Population Parameter And Sample Statistic, Descriptive Statistics And Inferential Statistics, Ungrouped Data And Grouped Data, Dependent And Independent Variable, Scale Of Measurement(Nominal, Ordinal, Interval And Ratio)

Introducing Software Interface:-

Data View And Variable View), Measurement Scales, How To Export Data From Excel To Software, Entering, Saving And Printing Data, Viewing A Few Cases, Merge File With Cases, Merge File With Variables, Sort Cases, Spilt File, Select Cases, How To Do Serial Number, Recode Into Same Variable, Recode Into Different Variable, Compute Command, Visual Binning, Generation Of Shell File.

Descriptive Statistics:-

Tables And Graphs for One Variable, Tables And Graphs for Two Variables, One Variable Descriptive Statistics, Two Variables Descriptive Statistics, Measures Of Central Tendency And Variability, Shape Of Distribution, Stem and Leaf Charts, Box And Whisker Plot.

One - Sample Hypothesis Tests, Two- Sample Hypothesis Tests (theory):-

The Logic of Hypothesis testing, A More Realistic Case: We Don't know μand Sigma, OneSample T-Test, The Logic of Hypothesis Testing, Paired vs. Independent Samples, Testing

One - Sample Hypothesis Tests, Two- Sample Hypothesis Tests (theory):-

Univariate, bivariate, Multivariate analysis techniques (SPSS Practical session)

Parametric and Nonparametric Methods:-

Introduction to Parametric and Nonparametric Methods, Mann-Whitney U test, Wilcoxon Signed Ranks Test, Kruskal- Wallis H Test, Spearman's Rank Order Correlation, Sign Test, Runs Test, One Sample Chi Square Test, Fridman One-Way Anova, Kolmogorov- Smirnov One Sample Test.

Factor analysis, cluster and discriminate analysis :-

Introduction to Parametric and Nonparametric Methods, Mann-Whitney U test, Wilcoxon Signed Ranks Test, Kruskal- Wallis H Test, Spearman's Rank Order Correlation, Sign Test, Runs Test, One Sample Chi Square Test, Fridman One-Way Anova, Kolmogorov- Smirnov One Sample Test.

DEPARTMENT OF BUSINESS INTELLIGENCE

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PUBLISHED BY:

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NEAR GU LIBRARY, GUJARAT UNIVERSITY**