

Student Name: Ronju Costa

Student ID: 1921242

Module Code: LCBB5000

Assignment Title: Assignment-1

Module Title: Data Handling & Business Intelligence (Current Trends of Business intelligence.)

Module Lecturer's Name: Anupam Mazumdar-GP1

Amitave Bank-GP2

Introduction

As a result of COVID-19, several firms have been obliged to reassess their processes. Even while the situation appears to be improving and additional long-term modifications toward a "new normal" are on the horizon, day-to-day operations remain far from returning to normal. Some firms are coping with the decline in orders from the previous year, while others are either still adjusting to the continuous disruptions in the supply chain or implementing procedures to prepare for future problems. (Yurchuk, 2020) The trends in business intelligence indicate that businesses are still seeking to establish themselves for the long term and are concerned with the basis of their data usage. Instead, organisations are concentrating on the underlying causes of their problems, such as the quality of their data and the creation of a data-driven culture. (Tripathi & Bagga, 2020)

The usefulness of the exponential growth of data has already been proved in recent years. In light of this, it is anticipated that organisations would make substantial investments in data-related solutions in the next years. (Richardson et al., 2020) Businesses are no longer worried about whether or not data visualizations boost analyses; rather, they are pondering the optimal technique to communicate each data narrative, using cutting-edge business intelligence

dashboard technologies in particular. The year 2022 will be recognised as the year of data security and data discovery, which will feature the combination of safe and clean data with a plain and effective presentation. In addition, it will be a time when businesses collaborate on initiatives including BI and AI. Let's now examine some of the most promising innovations in business intelligence. (Pribisalić, 2021)

1. SaaS and Cloud Adoption

As corporations and industries sought to make an understanding of the COVID-19 outbreak, they were obliged to declare a state of emergency. Due to the inability of on-premises solutions to satisfy the needs of a primarily remote workforce, many businesses were driven to evaluate the business intelligence strategies they were currently utilising. This year, a growing number of companies want to shift their business intelligence activities to the cloud, utilising either a private or public cloud or a SaaS solution. (Bommadevara et al., 2018)

Many organisations are modifying their financial plans in response to the outbreak to make room for the adoption of cloud infrastructure in readiness for the march toward remote and scattered workforces. By 2023, it is anticipated that 40% of company workloads would be hosted on the cloud, up from 20% in 2020. Gartner made this forecast. Analytics is now generally acknowledged as a mission-critical competence for businesses, and organisations are not hesitant to use data solutions. (Miyachi, 2018)

2. DATA SECURITY

A greater emphasis on data security will be one of the most significant developments in business intelligence in 2022. In addition, the recent judgement by the European Court of Justice to reject the Data Privacy Shield legal framework has not made things easier for software businesses. The Shield was a legal framework that allowed businesses to transmit data across international borders between European Union and the United States. As a consequence of the recent legislative changes that have considered the premiere outdated, U.S.-based companies are no longer permitted to send the personal information of EU individuals. (Yang et al., 2020)

When these factors are considered, organisations have been compelled to invest in security to comply with new regulations and defend themselves against cybercrime at the same time. Analysts expect that by 2025, worldwide spending on cybersecurity products would have

reached a staggering \$1.75 trillion. This development has not shocked the experts in the least. Businesses were urged to transition from physical to digital platforms by 2020, coinciding with the start of COVID-19. This necessitated their reliance on internet services and created a vulnerability that could have been exploited by hackers. (Cybercrime, 2021)

In the modern environment, millions of fraudsters scour the internet in quest of exploitable security vulnerabilities. The most terrible element is that both large and small businesses are equally affected. If your company has not taken special measures to maintain its security, there is always the potential that an assault may be successful. The increasing number of information breaches has rendered the safeguarding of confidential documents more crucial than ever before. (Kertysova et al., 2018)

3. ANALYTICS ON REAL-TIME DATA

In recent years, the need for real-time data has grown substantially, and this increasing trend will certainly continue through 2022 as one of the trends in data analytics. Since the beginning of the epidemic, we have experienced firsthand the importance of timely and accurate information to the development of effective prevention measures. Some governments have used data to make the most spectacular decisions imaginable, whilst firms have stuck to data to ensure their survival in these uncertain times. (Naseer et al., 2021)

Access to data in real-time is no longer exclusive to companies; the general public now has access as well. There is a chance that press conferences will be packed with the most recent information, graphs, and statistics that have contributed to the development of antiviral strategies. In addition, the development of ad hoc analysis has enabled firms to stay up with the most recent changes and react to the great challenges this year has presented. (Lewis et al., 2021)

Forecasting and alerts are becoming increasingly important in all spheres of life, including business and private life, particularly when it comes to generating appropriate company responses and plans for future endeavours when there are more variables to consider. In addition, the use of real-time dashboards will benefit organisations in having access to up-to-date information on their operations and in responding swiftly to any potential issues that may arise. The reason why some businesses can continue operations while others cannot is that high-speed digital connectivity is becoming the norm. In 2022, real-time data will play a significant role in

all types of corporate analytics, and the number of businesses employing it will expand dramatically. (Hall, 2020)

4. DATA LITERACY

"Data literacy" refers to an individual's ability to grasp, interpret, write, and communicate data in a certain context. It necessitates knowledge of the processes and techniques used to evaluate quantitative data, as well as the methods and technologies employed. (Ridsdale et al., 2016) The potential to analyse and utilise data as a supplementary tool that every member of the organisation can use is turning into an increasingly vital factor in assessing the level of accomplishment that a business will achieve. In 2022, data literacy will be one of the most significant characteristics of data analytics to monitor. (Panetta, 2021)

Unfamiliarity with data constitutes one of the most significant internal challenges that might impede achievement. In 2025, data literacy will become an essential need and a crucial element in the process of creating company value. The prevalence of self-service business intelligence solutions for the administration of huge datasets, continuous intelligence, artificial intelligence, and augmented analytics has propelled data literacy to the leading edge of a thriving data-driven society. (Mckinsey, n.d.)

5. DATA DISCOVERY/VISUALIZATION

Data discovery's relevance has risen. Business users must be empowered. Data discovery combines internal and external data using analytics and visualisations. Businesses may utilise this strategy to keep important stakeholders informed by allowing them to intuitively examine and update data while obtaining useful insights. Firms of all sizes utilise business intelligence solutions to integrate data, create graphical representations, and operate effectively and intuitively with large volumes of data. (Jena et al., 2022)

Data visualisation is a great way to show and engage with several charts on a single screen, whether for selling charts or interactive reports. Data discovery helps decision-makers get insights. Teams may see patterns and outliers quickly using visuals. (Stainton, 2022)

6. Data Visualization and Storytelling

Narrative and intelligent visuals help customers understand important facts. Visualization of data translates business information into pictorial and graphical representations that are easier to understand. Data storytelling contextualises data via dashboards, interactive reports, or attractive visuals. Display software has evolved beyond KPI reporting to machine learning through interaction and analytics. (Knafllic, 2015)

With AI-ML, users may request information using natural language and examine the findings in a manner that is simple to comprehend. They may correlate data with the background to choose where to focus at any particular time and generate alerts when data changes. Interaction enables data companies and consumers, as well as external stakeholders, to cooperate in a centralised location. As a result, BI software suppliers will concentrate on how to assist users in successfully communicating data narratives through visualisations and dashboards. (Lund, 2022)

Conclusion

Numerous firms are keen to control and utilise their data. They also illustrate that companies care about data integrity and use efficiency. This means that firms aim to use high-quality data to make better decisions, as opposed to gathering as much data as possible. In addition, the trend toward updating data warehouses demonstrates this point.

References

- Bommadevara, N., Del Miglio, A., & Jansen, S. (2018). Cloud adoption to accelerate IT modernization. *McKinsey Digital*.
- Cybercrime, M. (2021, September 10). Global Cybersecurity Spending To Exceed \$1.75 Trillion From 2021-2025. *Cybercrime Magazine*.
<https://cybersecurityventures.com/cybersecurity-spending-2021-2025/>
- Hall, R. (2020, October). *Why Forecasting is Important for Business Success*. Why Forecasting Is Important for Business Success. <https://www.baass.com/blog/why-forecasting-is-important-for-business-success>
- Jena, M., Ozdem, C. G., & Agarwal, S. (2022, June 3). *Top 10 Efficient Data Discovery Tools in 2022 - Learn | Hevo*. Learn | Hevo. <https://hevodata.com/learn/data-discovery-tools/>
- Kertysova, K., Frinking, E., Dool, K. V. D., Maričić, A., & Bhattacharyya, K. (2018). Cybersecurity: Ensuring awareness and resilience of the private sector across Europe in face of mounting cyber risks. *Study of The Hague Centre for Strategic Studies for The European Economic and Social Committee (EESC)*.
- Knaflic, C. N. (2015). *Storytelling with data: A data visualization guide for business professionals*. John Wiley & Sons.
- Lewis, J., Schneegans, S., & Straza, T. (2021). *UNESCO Science Report: The race against time for smarter development* (Vol. 2021). UNESCO Publishing.
- Lund, B. D. (2022). The Art of (Data) Storytelling. *The International Journal of Information, Diversity, & Inclusion*, 6(1/2), 31-41.
- Mckinsey. (n.d.). *The data-driven enterprise of 2025 | McKinsey*. McKinsey & Company. Retrieved September 12, 2022, from <https://www.mckinsey.com/business-functions/quantumblack/our-insights/the-data-driven-enterprise-of-2025>
- Miyachi, C. (2018). What is “Cloud”? It is time to update the NIST definition?. *IEEE Cloud computing*, 5(03), 6-11.

- Naseer, A., Naseer, H., Ahmad, A., Maynard, S. B., & Siddiqui, A. M. (2021). Real-time analytics, incident response process agility and enterprise cybersecurity performance: A contingent resource-based analysis. *International Journal of Information Management*, 59, 102334.
- Panetta, K. (2021, August 26). *A Data Literacy Guide For D&A Leaders*. Gartner. <https://www.gartner.com/smarterwithgartner/a-data-and-analytics-leaders-guide-to-data-literacy>
- Pribisalić, M. (2021). Evaluation of BI Solutions for Business Needs. In *2021 44th International Convention on Information, Communication and Electronic Technology (MIPRO)* (pp. 1277-1281). IEEE.
- Richardson, J., Sallam, R., Schlegel, K., Kronz, A., & Sun, J. (2020). Magic Quadrant for Analytics and Business Intelligence Platforms. *Gartner ID G00386610*.
- Ridsdale, C., Rothwell, J., Ali-Hassan, H., Bliemel, M., Irvine, D., Kelley, D., ... & Wuetherick, B. (2016). Data Literacy: A Multidisciplinary Synthesis of the Literature. In *Nineteenth SAP Academic Conference Americas*.
- Stainton, P. (2022, May). *Data Visualization Tools & Best Practices - AgencyAnalytics*. AgencyAnalytics. <https://agencyanalytics.com/blog/data-visualization-for-agencies>
- Tripathi, A., & Bagga, T. (2020, April). Leading Business Intelligence (BI) Solutions and Market Trends. In *Proceedings of the International Conference on Innovative Computing & Communications (ICICC)*.
- Yang, P., Xiong, N., & Ren, J. (2020). Data security and privacy protection for cloud storage: A survey. *IEEE Access*, 8, 131723-131740.
- Yurchuk, N. (2020). Features of Business Intelligence development in the conditions of digital transformations. *The Scientific Heritage*, (44-3 (44)), 68-75.