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Module: Data Handling & Business Intelligence

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1. Introduction

Business intelligence refers to technologies, strategies, applications and practices that are used to assemble, store, analyze and integrate information to allow firms to make quick and informed strategic decisions. Business intelligence allows users to access various types of data including historical and current (Yermish et al., 2020). Organizations can use this information to get insights into how the firm is performing. Organizations can also use data from business intelligence and analysis it to improve business decisions, explicate market trends, specify problems, find new business opportunities and so many others. The four elements of business intelligence are people, processes, data and technology. The structure outline of the report is to identify the trend of business intelligence and to explore why firms require to implement this system. Finally, the report will be able to present a clear idea about the topic.

2. Current business intelligence trends

In this modern era, it becomes a trend for organizations to implement business intelligence. Some popular trends in business intelligence are explained below.

2.1 Artificial Intelligence

Artificial intelligence refers to the ability of machines and systems to obtain and apply human knowledge to solve complex problems. Today's business adopts it as a trend of business intelligence. According to Dhivya et al. (2022), Artificial intelligence interact and analyze critical business data based on human intelligence. Artificial intelligence is able to process a vast amount of data that is faster than a human employee. Businesses are in a rush to hold the influence of AI and BI in the organization (Merhi, 2023). This technology has also some disadvantages in its implementation. Such as it may create a disruptive situation inside an organization and millions of employees lost their job. Many giant IT companies work on it to make it more efficient and effective for every business.

2.2 Data Discovery

Data discovery has been one of the most critical business intelligence from the year 2017. Data discovery means collecting data from various silos and databases and then assembling them in one collection for easy analysis (Velu, 2021). Businesses can easily collect important data from marketing intermediaries, customer feedback, supply management and so many others. But all information may not make sense for the people who analyse it. Data discovery systems solve this problem it enables people who have no IT skills to access data. According to Yeoh and Popovič (2016), it is easy to find any pattern of data and trend from a set of data with the help of data discovery. Data discovery is going to persist as one of the most important business intelligence of business.

2.3 Data Governance

Data governance is a process that creates a blueprint for an organization to manage its wide range of data including processes, operational activities and manner (McBride, 2018). Data governance is one of the most important trends for the business which want to get significant return from its business intelligence investment. The tactical, operational and statistical level of a business is influenced by data governance. As a result, it becomes a trend for businesses to adopt data governance.

2.4 Data Security

Data security refers to a process that increases company visibility where data are stored and used. According to Ardagna and Damiani (2014), accurate, complete and understandable data is very critical for an organization in time of decision-making. For example, Facebook TMobile and MyHeritage faced a cyberattack in 2018. As a result, these companies lost millions of their users. A bad public impression was created at that time and the market value of these firms also decreased. With the help of modern technology, millions of hackers are sinking for the way of data hacking (Merhi, 2023). The matter is more concerning is that they target all firms small and large. So, to be protected from data loss and corruption every company give effort into data security

trends.

2.5 Data Quality Management

Data quality management refers to a specific process for improving the quality of the data that collect, analysed and used for decision-making. Today data has become critical for any business. Data helps businesses to know about customers' demands, know about competitors and can create effective value for their customers (Bargshady et al., 2014). If the data is not accurate up-to-date it can spoil the firm's market value and a strong possibility of loss of valuable customers. So, organizations focus on data quality management.

3. The Importance of implementing Business Intelligence

The main reasons why businesses require implementing business intelligence are described below.

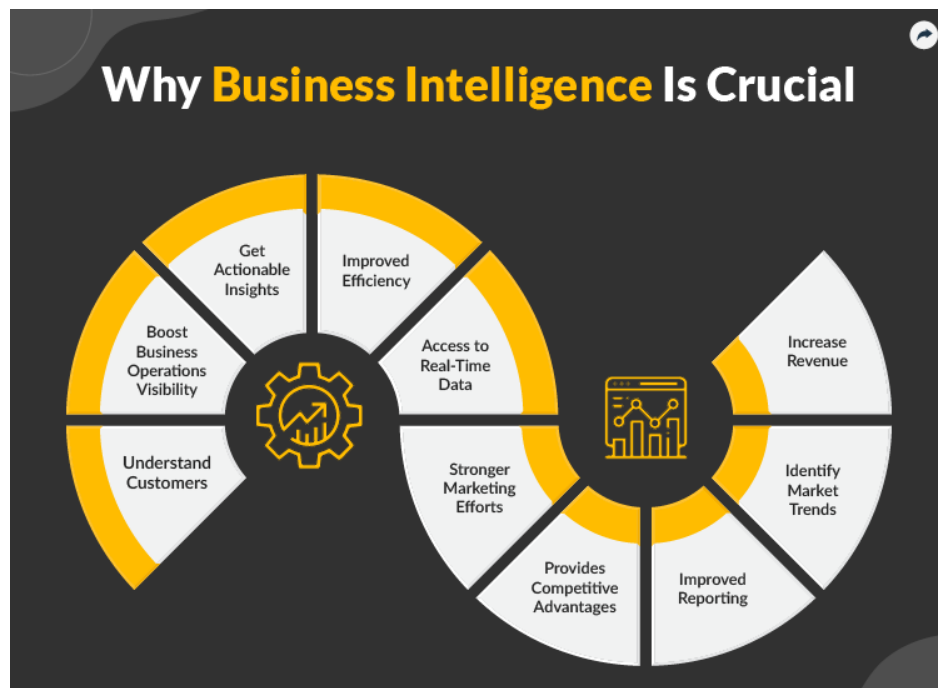


Figure 1 Importance of Business Intelligence

Source: (SelectHub,2023)

Figure 1 indicates the reason why businesses require business intelligence. It shows some importance like providing competitive advantages, improving reporting, improving efficiency and so many others.

3.1 Gain New Customer Insight

One of the main reasons firms invest their efforts, time and money is to know the current and potential customers. According to Müller and Lenz (2013), business intelligence enables businesses to identify the needs, expectations and purchasing trends of customers. Based on this information company design its product that can meet the customer's expectation and it helps make customer satisfaction and increase profitability.

3.2 Competitive Advantage

The more a firm knows about its competitor the more it can improve. By implementing business intelligence, a company can gain insight about what its competitor doing and what they offer the customers (Yermish et al., 2020). Business intelligence helps the firm to make more educative decisions than its competitors.

3.3 Sales Insight

Sales and marketing departments need to track their customer to create the best customer relationship management. According to Dhivya et al. (2022), business intelligence provides sales department information and insight that helps to take the most reliable sales initiatives. So, firms need to implement this to identify new customers, track and retain current customers and provide them with post-sale service.

3.4 Real-Time Data

When executives and decision-makers need combined reports produced by various departments. The data of that report may have human error and the possibility of being outdated. Business intelligence provides firms with visual dashboards, spreadsheets, scheduled emails and so many others (Velu, 2021). An organization can have interpreted and analyze vast amount of data accurately and quickly when it uses

business intelligence tools.

3.5 Improved Visibility

Business intelligent organizations can control their processes and standard operating procedures because the visibility of these models is monitored by the business intelligence system. According to Yeoh and Popovič (2016), firms that use business intelligence systems can quickly identify the error which needs to be improved. It takes a long-time process to verify a hundred of pages of a report whereas it can be made within a short amount of time.

3.6 Productivity

Using business intelligence firms are able to reduce costs and can make regular tasks automated. As data is processed centrally, the management of the firm can take effective decisions based on business intelligence (McBride, 2018). This system also helps managers to direct employees to intensify productivity.

4. Conclusion

Business intelligence is an application that collects data and present it in a view that user can easily understand as reports, charts and graph. In this process, the firm gathers data from the internal IT system and external sources and then makes a collection of it for analysis. Now this technology becomes a trend for all businesses. To make a brief discussion of business intelligence was the aim of the report. The outlines of the report were to know about the trend of business intelligence and to identify the importance of the system. At the end of this report had made a clear idea about this topic and achieved its aims.

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