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1. Introduction

Today, BI is one of the most significant factors in the success of a business in the contemporary world, especially in the retail industry. BI comprises several technologies, applications, and practices that are employed in the identification, compilation, analysis, and communication of business information. Its primary intention is to improve the decision-making functions in organizations (Chen et al., 2012). Hence, for contemporary retail companies that are functioning in conditions of increased competition and the data-driven environment, the application of BI has become not only beneficial but also vital for the organization's evolution. The issues that the retail industry may face in big data processing include data derived from POS, e-commerce, supply chain, and CRM systems. In this regard, BI acts as a powerful weapon which enables retailers to convert data into information that can be used in strategic management (Gang et al., 2008).

2. Why BI Trends, Tools, and Applications are the Future for the Business

What has been realized is that the retail industry is in the middle of change, which is a result of changes in technology and consumer behaviour. In this dynamic environment, BI has become indispensable for several reasons:

1. Data-Driven Decision Making: BI tools assist retailers in making the right decision at the right time and not on guesses as to what might work. McKinsey analysis showed that data-driven organizations have 23x chances of getting new customers than those that are not data-driven, 6x chances of customer retention, and 19x times the chances of being profitable (Assur & Rowshankish, 2022).

2. Real-Time Insights: Modern BI solutions are more capable of providing real-time data analysis and hence enable retailers to alter the rate of action depending on the prevailing market condition. For example, in the textile and apparel industry, BI systems have been applied to provide information on stock, sales, and customers' preferences in the market (Ahmad & Miskon, 2020).

3. Personalization at Scale: BI tools assist retailers in comprehending the customers and providing them with specific solutions. From the perspective of Bruno (2021), the application of artificial intelligence, which is a key component of modern BI systems, into marketing methods and consumers' behaviour is changing the marketing process through individualization.

4. Operational Efficiency: BI applications are used to improve the different areas of retailing. In the context of the best practices in supply chain management for retailers, Business

Intelligence is essential, as it allows the optimization of the processes and reduces the approach to them.

5. Competitive Advantage: This is because relevant information can be helpful to retailers because Advanced BI tools are available. As listed by Gartner's strategic technology trends, by the year 2023, those organizations that are leading the decision intelligence race will significantly outperform those that are lagging (Top, 2020).

Nevertheless, like any other tool, BI has drawbacks that, when looked at critically, may not be as positive as the prospects. Some of these may include being expensive to implement, Data breaches, and Relying too much on data instead of emotions and instincts. However, the advantages that can stem from the utilization of BI are far greater than the disadvantages as long as BI is applied with the proper considerations and in a moral manner.

3. What BI Trends (5 BI Trends) Can Help to Make Timely and Effective Decisions

3.1. Augmented Analytics

The current advancements in the use of ML and NLP in the augmentation of data cleaning and decision-making in the retail industry are termed Augmented analytics. The research question for KAYADIBİ (2024) is as follows: In what way does augmented reality, as a related technology, influence the consumers' behaviours and shopping experience? Thus, the tendency in BI is that it can help retailers in decision-making by providing trends and unusual situations that may not be visible to people.

Positive consequence: Imperative effects in the quality of the insights and the time taken to make a decision.

Negative consequence: One of the potential problems is overemphasizing the analysis and forgetting some factors that could be relevant.

3.2. NLP natural language processing in BI

NLP allows people to interact with BI tools using natural language, thus allowing non-specialists to use data analysis. Chen and other authors in the year 2023 describe how NLP is being integrated into BI Systems in the aspect of Industry 4. 0 to enable natural and convenient ways of interacting with and processing big data.

Positive consequence: Data analysis popularity expands when more people in the organization are allowed to use data.

Negative consequence: Misinterpretation of results by persons who may have not been trained in statistics if they have not received any training in the same.

3.3. Mobile BI

Mobile BI applications are specific applications that provide decision-makers with vital information and data to help them make decisions while on the move. Ahmad and Miskon (2020) also describe the example of the textile and apparel industry that uses mobile BI in the condition of fast-moving retail.

Positive consequence: Improve mobility and the capability to adjust to new situations in the market.

Negative consequence: Some of the challenges that may be seen in mobile data access are included.

3.4. AI-Driven Predictive Analytics

In other words, predictive analysis with the help of AI uses past information to predict future outcomes and make necessary arrangements Ajiga, (2024). have conducted a literature review on the current trends of AI in predictive analytics in the retail industry and the use of the same in customer relations.

Positive consequence: To predict in a better way, to avoid wastage and to have more sales.

Negative consequence: Since the strategy is greatly based on past occurrences, there is a high possibility of omitting new trends in the market.

3.5. Data Visualization and Storytelling

New tendencies in data visualization help to present big and complex data more simply and thus facilitate the communication of conclusions. Varsha and Karan, in an article of 2023, articulate the importance of descriptive analytics and data visualization in the e-commerce strategy and how these assists in decision making.

Positive consequence: Quicker and more efficient ways of comprehending the data and the information derived from it.

Negative consequence: That is, it can (create) lead to the creation of wrong meanings if the appropriate design of the visualizations is not made.

4. Conclusion

Thus, the integration of the current generation BI trends, tools, and applications is a revolution in decision-making and operational improvement in retail. Therefore, by using the augmentation of analytics, NLP, mobile BI, AI, and predictive analytics, retailers can improve their decisions and make the right and effective decisions at all levels of their organizations.

Nevertheless, some challenges include the costs of implementing the new systems and the need for new talents; the advantages that are gained from the BI solutions are enormous as compared to the drawbacks. Therefore, organizations that embrace such BI trends in the future will be able to know their customers better, optimize their business processes, and compete with other firms effectively.

The future of the retail environment will be owned by those who adopt the idea of data and its application in decision-making. Thus, further, as BI technologies evolve, there will be even more sophisticated tools and applications that will assist retail companies in operating and competing in the global market (Gupta & Khan, 2024).

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