

# THE TOOLS OF INFORMATION TECHNOLOGY FOR SUPPORTING BUSINESS DECISION MAKING

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**ABSTRACT :** *The field of Information Technology (IT) has made a huge contribution to the corporate world with its innovative and creative tools and technologies. It is always a critical task for the top management to take the crucial decision without the support of significant information systems. So the valuable analysis of available information to support business decisions are undertaken in this research by studying IT tools for strategic decision making. Some of the information analysis intelligence systems like Big Data analysis tool for taking strategic, operational and tactical decisions are valuable for the corporate. The research study is concise of the significance of IT tools for business decision making in the IT processes and application of structures and unstructured data into some valuable information. Moreover, the research study is considering different Big Data intelligence systems utilized in the organization for decision making. The considered objectives of the research study are achieved through a structural procedure of getting background information, secondary research, research methodology, findings, and analysis. It is concluding the benefits for MNC's and other businesses by understanding IT tools for business decision making with their significance, accessibility, procedures, and role of social media in this study.*

**Keyword:** *Business Decision Making, Information Technology, Big Data analysis;*

## 1. Introduction

The Information Technology (IT) has emerged various tools and technologies for the business world. One of them is business intelligence tools for decision making support which is a significant technology in decision making in an organization. In this report of an undertaken research study, the behavioral analytics Big Data management tool is discussed for learning the significance of such IT tools in business (Trivedi, Dey, Kumar & Panda, 2017). Moreover, the merging of structured and unstructured data of business is discussed with the role of social media in business information systems. The report is presenting suggestions and concluding outcomes analyzed through findings of previously studied researchers. On whole, the research study is discussing the understanding of effective use of business intelligence tools like Big Data in decision-making system of various corporate.

## 2. Background of the study

The Big Data intelligence tool is a software package which helps the organizations in managing different aspects of customer values, business operations, and decision making. There is some significant usage of decision making in marketing, operations, finance, cost budgeting, production etc. for the management of business values along with strategic planning and implementation (He, Wang & Akula, 2017). Moreover, the strategic, operational and tactical decisions of business are made through the analysis reports generated by such IT tool. It is utilized for structured and unstructured data assessment and processing into the business IT process. The valuable resource for collecting information is social media and the primary input data into business information systems. It is used to gather information through all possible resources either online or offline through its software application system. Moreover, the undertaken study is aimed to understand the significance, utilization, accessibility, and implication of Big Data intelligence tools for the information system in decision making (Wells & Thorson, 2017). Moreover, the working characteristics of intelligence tools like Big Data intelligence tools are understood and mentioned in the report.

### **3. Review of literature**

#### **Significance of Big Data intelligence tools**

According to the research analysis and findings of the study on Big Data Analytics applications for healthcare firms by (Wang, Kung & Byrd, 2018), the business intelligence toolkits are used for observing the consumers behavior with all the characteristics. The strategic decision making is observed through input, process, and outcomes of the business system. All the information on business-related business issues and aspects are stored in databases. These large databases are accessed time to time for making strategic decisions. While observing the key management issues of various business practices then it is monitored that every decision should be taken on researched information and study. Moreover, the research study is making understanding of the benefits attained through Big Data Analytics tool as analytical architecture, strategic advantages for information processing and technical support to the management and operational executives.

As per the research study was done by (Wamba, Gunasekaran, Akter, Ren, Dubey, & Childe, 2017), the impact of Big Data Analytical tools over organizational performance has the significant relationship with business objectives. The IT processes are so much influenced by the IT tools accessed in their operations which have a direct and indirect relationship with organizational performance. These tools are used while taking care of process planning and execution to mitigate demand of customer and requirements of the business. The Big data intelligence tool is accessed for communicating information to its user which is processed through analysis of a large data.

#### **The merging of structured and unstructured data of business using Big Data tools**

According to the research study of (Storey & Song, 2017), the conceptual management and tactics of Big Data tools for business is understood. It is defining that the effective implementation of business processes can be achieved through proper planning of data analysis. The information collected for business is achieved through various resources. Throughout, merging and assessment of business processes and information the Big Data analytical tool is helpful in attaining values from the existing business information systems. The information technology intelligence tools have supported in the collection of an information system into computer systems. This collected information is accessed for planning and development of business activities according to business planning.

As per the research study of (Hijazi, 2017), the merging of structured and unstructured information is accessed through IT tools combination to retrieve a valuable analytical information. Most of the facts and findings define that Business intelligence tools are merged with different information systems like knowledge management systems, Management Information System, online systems etc. to generate a useful database of decision making. The unstructured information is in form of primary data which is required to be processed for making meaningful information. Through the proper planning and development of raw data to secondary data information, new customers' can be connected to business systems.

#### **Information resources and social media role in Big Data tools for business decisions**

According to the research study undertaken by (Janssen, van der Voort & Wahyudi, 2017) has studied the concept of collecting information through different resources and impact of factors influencing data collection from such resources. The quality of collected information is the key constraint which is resolved by the tools of business intelligence analytics. Using the strategic decision making programs and methods, more data can be gathered with an identification of target groups. Overall business management is accomplished with the management of business strategies in IT processes along with business intelligence analysis. Social media involvement in business practices helps in interacting customer and people which can improve business services. The strategic change management steps are helpful in achieving targets and objectives of management in a business.

As per the research was done by (Intezari & Gressel, 2017), it is observed that specific demand of business customer is identified using customer databases. The focus of business process management in an organization is to control system by attaining requirements. The social media is a healthy resource for identifying client's requirements because of access to internet databases using social media platforms. The business intelligence tools in IT contributes in linking with social media as a system which helps in managing requirements of business processes along with specific demands of service. The research findings define that information technology has grown with the development of management tools and technologies which has the immense relationship with social media platforms for the business decision making.

### **4. Research methodology**

Research is a way of collecting and assessing the information which is processed and well justified by someone like scholar, researcher, scientist, publication, author, business newsletter etc. The method of attaining the quality research information is processed for some specific objectives and aims of research to resolve some challenges. So on the basis of research methodology in finding responses for the objectives and processing analysis to generate results, a specific procedure is followed. The whole procedure undertaken is understood as

the research methodology. Further, the analysis of the study is done the collected information through the qualitative techniques (Manogaran, Thota & Lopez, 2018). It is secondary research which is defining the information gathered from relevant previously studied contents. The findings of the research will be discussed for the justification and futuristic usage.

#### **5. Problem statement**

Business decision making requires stringent and concrete IT tools in this era of business for analytical decisions in business operations so it needs to understand IT tools like Big Data analytical tools. So the valuable study and conclusion are required on the understanding of such IT tools for students and other researchers.

#### **6. Significance of study**

The undertaken research will help in understanding the usage of Big Data tools as business intelligence tools and analytical techniques while making adequate business decisions in various business firms (Trivedi, Dey, Kumar & Panda, 2017). It also important to the management and executives for the learning that how the Big Data tools are helpful in attaining the aim of collecting suitable information from the all available resources. Moreover, it is significant to understand the role of social media with business intelligence tools for decision making as well as assessing unstructured and structured information.

#### **7. Research objectives**

Here, the undertaken study has an objective of studying the significance of IT tools in business decisions making. It is having other aims of learning contribution of Big Data intelligence tool in the analytics of information for the right decision making.

#### **8. Research design**

This research is having process design for finding solutions for problem statement to achieve research objectives. It has steps of identifying problems, making objectives, processing with background study, qualitative analyzing and interpreting included literature processing with the outcomes.

#### **9. Findings & analysis**

The findings of research study have undertaken the review of various literature reviews which are presenting string information on the objectives. Though, it is considered that qualitative research technique is required for processing the collected information of secondary data. So the findings are including following outcomes which are analyzed and interpreted below for the understanding of readers.

#### **10. Discussion**

It is found that throughout the research and study of business intelligence tools significance in business organizations using Big Data tools and information resources, it is observed that the demand of capitalizing secondary data information is relevant to the objectives of the study (Beneventi, Bartolini, Cavazzoni & Benini, 2017). The planning and development of research have provided details of usability of resources like internet and social media in business intelligence analysis for decision making using potential Big data toolkits. It is found that strategic implementation of knowledge resources and data analysis tool has the effective influence over business intelligence decisions making. Using the Big Data toolkit with other use cases is helpful in managing roles and responsibilities of managers and employees according to their business objectives (Wells & Thorson, 2017).

Further, the significance of studying Big Data tools used in an organization is found beneficial for making concrete and adequate decision making through its analytical and intelligence mechanism. It is found competitive for organizations to have IT tools like Big Data tools for finding right information from unstructured or structures data resources while merging facts and figures into business databases (Manogaran, Thota & Lopez, 2018). The social media is a key resource for the organizations in collecting customer data as well as the market scenario. So it is sound crucial to have Big Data intelligence tools with internal and external resources while making decision support system in the organizations. Moreover, the Big Data intelligence tools are helpful for streamline the IT processes in an organization while taking business decisions.

#### **11. Recommendations**

It is suggested to the management of organizations, employees as well as learners to consider the following suggestions while thinking to have knowledge of implication of Big Data tools in their firms.

- It is suggested to have suitable big Data tool in the organizations according to the nature of the business.

- The selection and implication of Business Intelligence System must consider the reviews of management, managerial executives as well as operational staff in the organization of acceptability and right implications.
- All the genuine information data must be interlinked with Big Data tools for quality business decisions which can assess information from all possible resources.
- The understanding of all the factors influencing business decision making must be considered for the effective outcomes with Big Data IT tools

## 12. Conclusion

It is understood through the research study undertaken the aim of finding the significance of IT tools for business decision making and getting knowledge of Big Data tools. It is found through the study of previously achieved literature that Big Data Intelligence tools are beneficial for right decision making in business systems. The role of social media and other resources is remarkable for the service industries which are using Big Data tools for decision making. The unstructured and structured data can be processed adequately into business databases using right IT tool. There is need of selecting right Big Data tool in an organization with acceptance of stakeholders and which can coordinate with the existing information system of the organizations.

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