

# Adaptation of Text Mining as Text Data Mining, Similar to Text Analytics for the Process of Driving High-Quality Information from Text

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## Abstract

This research study describes the text mining adaptation of the business organization. In the present time, text mining helps the business organization to analyze the vast text document and extract valuable data from this text. This study has adopted the secondary qualitative data collection methods and from this secondary data, this study has conducted the thematic analysis to find the authentic result. This text mining process has used several types of tools and technologies that can help to increase the capacity of the organization. The business organization can get several benefits from this text mining process.

## Keywords

Automated Process, Text Analytics, Text Mining.

## INTRODUCTION

Text mining is a significant process that helps to get high-quality information from the text. A business organization has used several types of data to increase its capacity. In this regard, text mining plays an effective role in the business organization. Text mining is also used as text data mining for developing organizational value and performance. The text mining process analyzes large sizes of documents and extracts valuable data that helps the organization to increase its profit in the marketplace. Text mining has used several important tools and techniques for data extraction. These various tools and techniques mainly affect the business organization significantly.

## LITERATURE REVIEW

### Concept of text mining

Text analytics is the most significant process that helps to arrange the unstructured text and find valuable information from this document. This is the automated process of text analysis. In this regard, through this text analysis process find quantitative data from the vast text documents[1]. The business organization has used text analytic processes through several types of tools and techniques. In a business organization, the customer's experience plays an effective role in developing the organization. In this regard, to analyze the customer's experience and find the result has used a text analytics process. Text analytics and text mining are the same types of process that is used in business performance. This process has used different types of techniques. The text mining process is the new approach and it has used more upgradable techniques to find high-quality information.

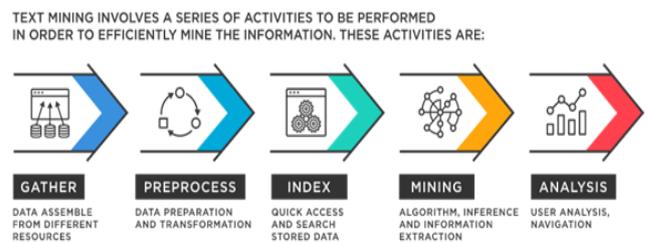


Figure 1: Text mining process [1]

In the present time, technological uses are increasing in every sector to develop organizational capacity. In this respect, text mining is the most effective process that helps the business organization to get high-quality information. Text mining has helped to analyze the previous and unknown data and from this data extract important information. This analysis helps to increase the knowledge about the market and the competitors. In the other words, this text mining also gives new information about the market. For research purposes, this analytical process has been used to examine large-size information[2]. In the present time, the business process has used various types of data to develop their business performance. In this respect, the text mining process helps to extract various data from large text documents. Text mining has followed some processes for analyzing high-quality data. In the analysis process, first, gather several large sizes of text documents and process these text documents to find high-quality data. After processing the large text documents stored the data through algorithm, inference, and information extraction and analysis of this data to get high-quality information.

### Useful techniques of text mining

Text mining is a software-based process that helps to arrange unstructured data and find high-quality information. This process uses various types of tools and techniques for examining the large size of text documents. In this regard, through these tools and techniques, the text mining process runs effectively.

**Information Extraction (IE)**- In the text mining process, information extraction is the most effective technique that helps to extract important information from large text documents. These techniques arrange the unstructured text and recognize the relationship with the organization.

**Information Retrieval (IR)**- This technique is used for extracting particular information from vast text documents. The IR technique has used different types of algorithms for finding associated information[3].

**Natural language processing (NLP)**- In the text analysis process, natural language processing techniques play an effective role in examining the structure data [4]. This NLP helps to summarize the text data and analyze the sentence construction and grammar.

**Clustering**- Clustering is another significant technique that helps to find valuable information from large text documents[3]. These techniques classify the text documents in various groups using the different clustering algorithms. This technique helps to extract the data from top to bottom of the text documents.

**Categorization**- In the business organization uses different categories of data to develop their performance. In this regard, categorization techniques help to classify in various categories with objectives of this business organization.

**Visualization**- In the text mining process, the visualization technique helps to differentiate the text data. In this process, use different shades and colors to represent the documents. This technique has arranged the data with visual hierarchy tools.

**Text summarization**- The text summarization gives the overall perception of the text documents. In other words, it also helps to describe the frequency, position and suggest the most effective information from the exact sentence.



Figure 2: Useful techniques of text mining [3]

### Effects of text mining to get high-quality information

In the business process, the text mining affects significantly. In business organizations text mining helps to increase their performance quality and profit. In the business organization, *customers' sentiment analysis* plays the most significant role in business development[5]. In this regard, text mining analyzes the customer's experience. According to this sentimental analysis, the business organization can increase their products and service quality through text mining.

The text analysis process helps to **identify the risks** of this business organization in the marketplace. In the marketplace, business organizations have faced several risks and challenges. The text mining process helps to identify the actual problem of the organization. In this present time, through the software, the business organization has collected large amounts of text data. On the other hand, the internet now presents various types of text documents that can help the organization to improve performance[5]. Text mining extracts high-quality information from large text documents. The text mining process **increases the accuracy level** of the business organization. This text mining process helps the organization to **improve performance quality** by providing effective text data and valuable information. Increase the performance quality this organization can get **competitive advantages** in the marketplace.

### METHODS AND TECHNIQUES

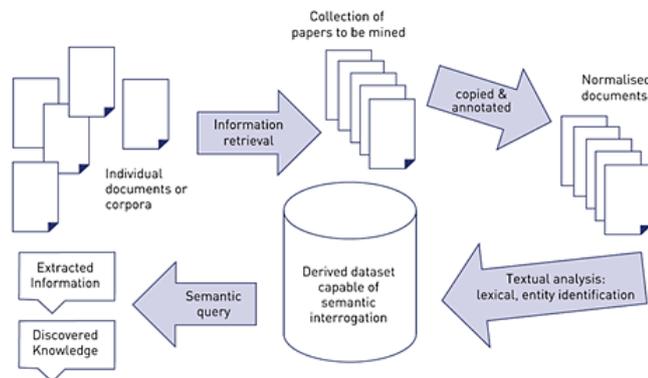
In the research study, the methodology is the most effective part that helps to find the authentic result. In the methodological section, data collection plays the most significant role in completing the research study. In the data collection method, mostly qualitative and quantitative data is used to find the authentic result of the study [6]. Due to the pandemic situation, the researcher was not able to follow the primary data collection method and for this reason, this study has adopted the *secondary qualitative data collection method*. In this secondary qualitative data collection method mostly the researcher has used *online articles, books, journals, and authentic websites* which were published five years ago [6]. In the previous articles and journal mainly helps the researcher to collect the information and get the idea about the topic. In other word, from this secondary qualitative data collection process, the researcher gets the chance to compare the previous situation with the current situation of this research topic. According to the secondary qualitative data, the researcher has adopted *thematic analysis*. This research study has followed the *descriptive research design* to represent the findings of this study accurately. In the other words, this research study has adopted the *positivism philosophy* to complete this study successfully.

## DATA ANALYSIS

### Thematic analysis

#### *Utilization of text mining in business process*

In the business process, text mining helps to develop the organizational products and services quality. Text mining mainly utilizes several sectors for increased efficiency. In the marketplace, the **health sector, financial sector, manufacturing sector, automobile sector, and food sector** have used the text mining process in their business. In the financial sector, text mining helps to analyze the profit and loss and also gives information about the other organizational activity [7]. On the other hand, in the manufacturing sector to develop their performance and produce better quality products the text mining process helps to improve the manufacturing system of the organization.



**Figure 3:** Utilization of text mining in business process[7]

#### *Text mining gives opportunity in the business process*

Text mining has given many opportunities to business organization to increase their capacity in the marketplace. In the manufacturing process, text mining plays the most effective role in analyzing text information. In the present time, in the marketplace, several manufacturing companies also produce the same type of products [8]. In this regard, the business organization has got the chance to understand the capability of the competitors. According to the text mining data, the organization can develop its product quality and can introduce to the market new products. The business organization can increase its capabilities through this text mining process [9]. In the business process, text mining gives the organization the statistical data that helps the organization to understand the current situation of the market and also the organizational position.

#### *Benefits of text mining*

Text mining helps the marketplace to give different types of benefits to the organization. In the marketplace, the most effective benefit is increased economic potential. Text mining helps to analyze the organizational overall performance and through this text mining, the organization can implement upgradable technologies and innovation in their business process. The computerized text analytic process can increase the accuracy of the organization [10]. In the health sector, text mining helps to get information about

the market position of this organization. In another word, text mining helps to analyze the previous situation of the organization and it also helps to find the future carrier of the organization. In the marketplace, the financial organization has got **36% profit** through the high-quality text information.

## CONCLUSION

After all these discussions, it can be concluded that the text mining and text analytic are the same processes. These two processes have helped to analyze the text documents and extract the valuable data from the large size text document. In this regard, the text mining is a more upgradable text analysis process that can give accurate data to the business organization. Text mining has used several types of technologies for the analysis of text documents. In the present time, several text documents are available in the marketplace. These text documents help to analyze the market position of the organization and give a competitive advantage to the business organization.

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