

# Chapter 61

## The Concept of Big Data in Bureaucratic Service Using Sentiment Analysis

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### **ABSTRACT**

*The implementation of bureaucratic reform in Indonesia is not optimal and faces various obstacles. At present, public services demand excellent service and meet public satisfaction. The obstacles are rigid bureaucracy, incompetent bureaucrats or apparatuses, not professional, and there are technological gaps. Rapid technological development, such as digital technology and big data, has not been responded to positively by most bureaucrats. Big Data has a great potential for improving bureaucratic and public services. With a qualitative method and a waterfall software development life cycle, this article provides the design of a bureaucracy sentiment analysis application which implements Big Data technology for analyzing the opinions about bureaucratic service in Indonesia. This is for the purpose that the bureaucratic services can be improved based on societal opinion. The results of the experiment using RapidMiner showed that sentiment analysis as a Big Data technique for bureaucratic service based on societal opinion can be used to evaluate performance better.*

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## INTRODUCTION

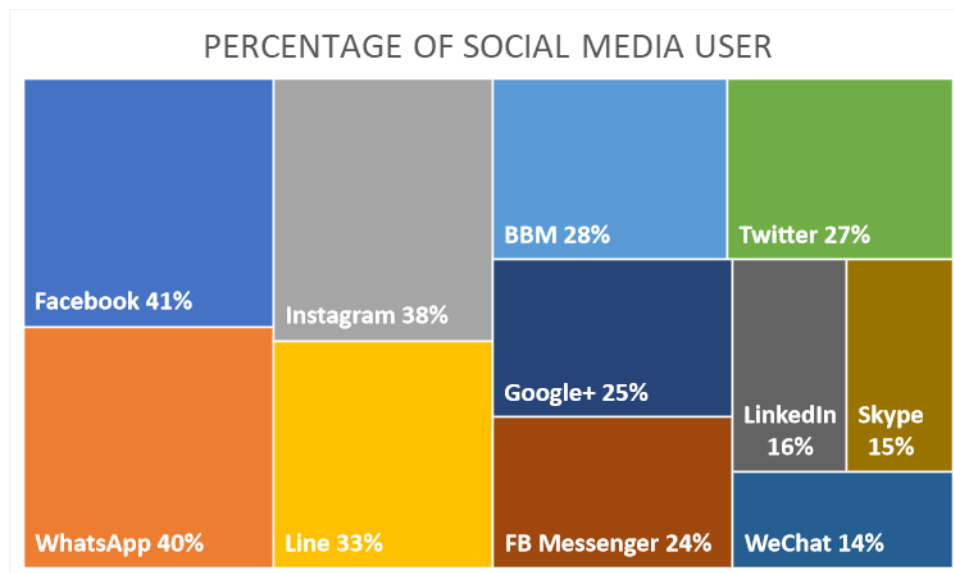
Until today, there has been a stigma regarding the performance of bureaucrats and bureaucracy in various governments in the world, especially governments in developing countries such as Indonesia. Bureaucracy in many developing countries is rigid, slow, inefficient, ineffective and so on. In the midst of society, a “bad” stigma develops about bureaucracy, related to the services provided because it is still far from the expectations of society, there are “bacterial” pathologies in the body of the bureaucracy, making the image of the bureaucracy in the public eye “bad.”

Therefore, the negative stigma needs to be eliminated. One way is to do bureaucratic reform. The Indonesian government carried out reforms since 1998, together with the formation of the Reform Order. Reformation is a systematic, integrated and comprehensive effort aimed at realizing good governance, including good public governance, and good corporate governance (Damanhuri, 2017). The demands of bureaucratic reform in Indonesia occur as a result of public pressure on past government dissatisfaction (Mariana, 2017).

The fact is that bureaucratic reform in Indonesia has not been optimally implemented because of various obstacles, especially in the bureaucrats or apparatus as implementers of the policy. For example, the quality of public services that have not been optimal, is not in accordance with the criteria of the New Public Service (NPS) model. So that the level of community satisfaction is still low on services provided by the government. Some bureaucratic reforms in the aspect of public services that are the focus of attention are issues of corruption and public service and public information disclosure.

The essence of bureaucracy is its Human Resources (HR), namely bureaucrats or apparatus. HR factors that are incompetent, unprofessional, and do not master modern technology, are the weaknesses of bureaucratic reform in Indonesia. This has led to a gap between technological advances, such as digital technology and big data, with slow and less responsive bureaucracy. According to Kaloh, that work begins to change into knowledge-based work and human resource needs also change towards knowledge workers.

*Figure 1. Percentage of social media user in Indonesia*



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