The Role Of Big Data In Agriculture

With the rapid digital transformation of worldwide businesses, data has soon become one of the foremost valuable resources in the world. Agricultural farming with big data is gaining power by using technologies such as soil sensors and livestock monitoring devices to generate reams of priceless information. It is expected that agricultural businesses will make better-informed decisions, and that they will have access to a number of advantages. Applications and procedures that uses all this knowledge are essential to the understanding of its value, some of the prominent uses include the following four:

• Yield prediction

Predicting yields allows farmers to gain insights about what to plant as well as when and where to grow with machines for processing statistics and making decisions, like evaluating production and climate, which means using sensors to collect data requires only a small amount of manual work.

• Risk management

A more influential area in nowadays is risk management. It is possible now for farmers to evaluate the chances of events like crop failure, and even improve feed efficiency in livestock production.

• Food safety

A key aspect of modern agriculture is the ability to detect microbes and incidents of contamination immediately. The collection of data around things such as humidity, temperature and chemicals will ensure the health around agricultural businesses.

• Operation and equipment management

Furthermore, big data is improving the various aspects of the daily operations of agricultural businesses. As more companies offer equipment management solutions, farmers can minimise downtime, maintain productivity and sustain profitability.

Some of the more common goals that businesses' have are around improving profitability and efficiency, reducing the cost while increasing the product value. With big data and available devices, every goal in terms of profitability, efficiency and cost management are not only achievable, but also completely realistic.

The positive and negative consequences of Big Business collecting and using Big Data

Customer data has been collected by businesses and is becoming the most important

consideration to businesses. More businesses are able to evaluate, gain insights and take advantage of customer data as more advanced technologies are being used to collect and interpret it. Through selling data to companies, developing marketing strategies, and even generating new revenue streams, companies could enhance customer experience through customer data. There are usually three ways to collect customer data: ask customers, tracking customers, and by incorporating other sources of customer data.

There are also commonly four ways that companies use consumer data that they had collected: improving customer experiences, refining marketing strategies, turning data into cash flow and using data to secure data. There are many advantages of using big data in businesses, such as better decision making, increased productivity, reduce costs, improved customer service and increased revenue. On the other hand, there are also some disadvantages from it, including the following: data quality, cybersecurity risks and rapid change. When data capture and analysis technologies become more advanced, companies can find new and more efficient ways to collect and contextualise data on everything that is necessary for businesses to be competitive in the future.