Unlocking the power of data

By Nguyen Thanh Hai
Senior manager of IT risk assurance services, PwC Vietnam

Data plays a crucial role in today's digital age. However, organisations have not yet extracted great insights from data. Only 0.5 per cent of all data produced is ever analysed and used in any given year.

Data explosion in the 21st century

The market intelligence firm International Data Corporation (IDC) predicted that the annual 'digital universe', the volume of data created and copied every year, will reach 180 zettabytes (in bytes: 180 followed by 21 zeros) in 2025. Data production is also expected to double in volume every two years for the next decade, according to IDC's prediction. According to the Wall Street Journal, Amazon, Alphabet, and Microsoft invested $32 billion in data refineries in 2016, in anticipation of a time when data will move faster and further.

Businesses are generating millions of unstructured pieces of data every day in forms of emails, social media posts, and more, with data includes myriads of aspects, from customers' preferences and their consumption behaviours and opinions to developing trends.

A connected world promotes even more generation of data. According to PwC's research, an estimated number of 8.4 billion smart phones, sensors, actuators, vehicles, cameras, and drones are now connected.

Data is an asset already owned by many businesses in the form of customer information, financial data, surveys and reviews of products, operation processes, and other variants. But not many organisations can maximise the value of this data.

Data application

There is an increasing need for extracting insights from data. Applying these insights can support corporate governance, business forecasting, planning and decision making. Over the last few years, data analytics has become one of the top priority issues for business leaders to unlock the corporate potential, as well as managing costs and decreasing risks.

With a proper data analytics strategy and the formation of a qualified team, business leaders could put a strategy into practice to create a data-driven culture. PwC's recent Global CEO survey found that 64 per cent of CEOs believe that the way companies manage data will be a differentiating factor in the future. And using data to extract real insights is now a top priority for many companies.

Data and its application have already played a crucial role in solving critical problems for a very long time. One of the most famous cases that demonstrated the value of data application happened in 1854. At the time, London suffered a deadly outbreak of cholera. No one understood the cause of the mass fatalities, except John Snow, a local physician. He set out to pinpoint every death on a map

John Snow plotted every death on a map to find the fatality pattern   Source: Wikipedia

of the area. This helped him to realise a pattern that the closer to the Broad Street water pumps people lived, the more cholera cases occurred. This information revealed a link between cholera and water contamination, and convinced the city government to build a proper sewage system to stop the outbreak.

By mapping the fatalities, he used data to identify the real cause that lay beneath and saved millions of people because of this new knowledge. This shows that the power of data, even in a primitive form, can change the course of history.

Unlocking the power of data

Today, information is generated more rapidly than ever. However, Technology Review indicated that only 0.5 per cent of all data is ever analysed and used.
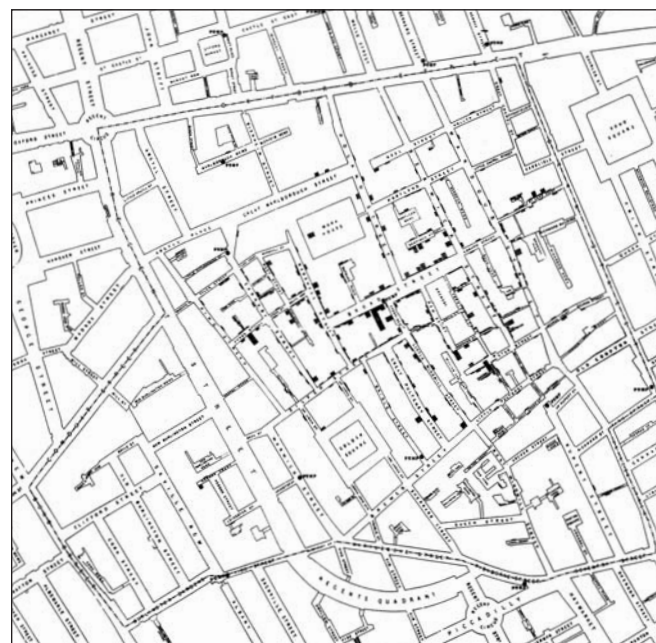
Today, data is more accessible, and its application has become more and more diverse than in previous centuries. The ultimate use of data is to extract and harness insights, adding further business value to every part of the value chain and to every area of the decision making process. This enables businesses to achieve better risk management, greater operational efficiency, enhanced product and service offerings, increased margins, and new growth opportunities.

In order to unlock the power of data, businesses need to focus on three areas. Firstly, firms have to understand what data needs to be developed or acquired to create a solid foundation and drive data-based insights. Secondly, they have to create transparent and reliable data by organising, integrating, and streamlining the data they use. Finally, they need to apply a series of analytics and visualisation methodologies, algorithms, techniques, and tools to gain insights from the data.

With the rise of data in the digital universe, data collection is just the very first step. In order to take the leap, businesses need to understand the data flow, how to control and govern data, and especially, ways to harness insights from data to add value to the business.

It's not just about having data – it's about how well you use it. ∎