Research Collection School Of Accountancy   School of Accountancy

Using data analytics to raise productivity and profitability: 4 key steps for SMEs

Gary PAN
Singapore Management University, garypan@smu.edu.sg

Poh Sun SEOW
Singapore Management University, psseow@smu.edu.sg

Citation

PAN, Gary and SEOW, Poh Sun. Using data analytics to raise productivity and profitability: 4 key steps for SMEs. (2018). *Business Times (Singapore)*.
Available at: https://ink.library.smu.edu.sg/soa_research/1795

Using data analytics to raise productivity and profitability: 4 key steps for SMEs

BY GARY PANSEOW POH SUN
THE BUSINESS TIMES

20 MAR 2018 - 05:50

IT IS widely believed that effective data analysis may create new business opportunities as technological advancement may offer companies greater ability to predict what their customers want.

Many companies, including SMEs, have leveraged data analytics to improve business performance by integrating data analytics capability with enterprise solutions. For instance, SunMoon has deployed NetSuite's OneWorld platform for its ERP (enterprise resource planning) needs, allowing it to manage and optimise its network of over 11,000

points of sale across nine geographies, along with 157 suppliers providing over 100 products. With the NetSuite software, SunMoon can provide real-time data on prices and details of its product range, and enhance price transparency and operational efficiency.

Another SME, Lee Wenyong & Co, developed an online cloud application to enable its customers to integrate accounting, inventory, point-of-sale and human resources data into a single system. The data are processed and presented visually as an analytics dashboard which allows the company to track its profitability in real time.

Knorex Pte Ltd, another local software development company, offers analytics services to enable its clients to make sense of their data for better intelligence. Knorex uses advanced image recognition technique to enhance physical media such as newspapers with interactive contents. Users can simply point their smart devices at the newspaper article to interact with the embedded contents such as multimedia, social media sharing and 3D models. These interactive features are embedded with comprehensive tracking to provide analytics to marketers. Marketers can therefore better understand the interest of the readers based on their engagement with the interactive contents.

Data analytics allows executives to obtain timely and relevant business data, enabling them to make better decisions, grow revenue, maximise organisational efficiencies, and manage risk and compliance.

The advancement in analytical tools certainly plays a key role in supporting data visualisation, statistical analysis and text mining among other capabilities. For example, a SME can analyse incoming data, such as sales records, marketing patterns, and growth metrics of the company, and create dashboards for easier visualisation of the trends. It may also analyse performance metrics such as resource productivity,

debt recovery and inventory turnover, which allows the organisation to gain insights into its businesses and integrate business processes as part of a broader enterprise transformation.

Data analytics may also tap on both structured and unstructured data to obtain significant insights. So far, SMEs have relied mainly on structured data. However, structured data covers only 20 per cent of the data held in SMEs' computer systems. Approximately 80 per cent of a company's data is stored in an unstructured form which does not lend itself to conventional analysis. This unstructured data may include employees' electronic mails, telephone conversations and many others. So it may be wise for SMEs to integrate available structured and unstructured data, and then perform data analytics on both types of data that will offer deeper business insights. For a start, it may be useful to create a central repository of a company's data from various sources such as Excel/CSV, relational and non-SQL databases like Salesforce etc.

Here are four key steps on how SMEs may embrace data analytics to improve business productivity and profitability.

- **Defining the objectives**

The first question is: What does the organisation want to achieve from its data? For instance, an organisation may examine whether it can deal with a customer's request quickly and efficiently, hence ensuring customer satisfaction is high. This may have implications on whether there will be repeat orders from the same customer.

- **Identify all sources of data**

Most SMEs will have data stored in a range of isolated areas. The key is to work with what they have and then integrate various data. Besides

customer contact information, a business will have additional information that encompasses many different ways it communicates with its customers. For example, the telephony system tracks all calls made and received. Besides call recordings, there are email records and social media accounts for further data on communication with customers.

- **Integrate data and consolidate**

The next step is to integrate and consolidate all sources of information within a single tool. If a CRM (customer relationship management) system is unavailable, the SME may need an alternative repository in the cloud that could tap into various databases and systems to present the information in a web-based dashboard for interpretation.

- **Analyse dashboards and turn data into actionable insights**

The combined data on the dashboard should display key performance indicators based on the communication data gathered, such as customer details, their last orders, any previous email communication, when they last called, and who handled the call. Call recordings enable users to hear what was discussed in conversation with customers. This helps SMEs to predict customer behaviour and improve their service before they encounter a complaint. Being predictive is how you can excel in customer service and improve processes. Over time, staff can then be more productive and effective, hence improving revenue and profitability.

- **Dr Gary Pan is the Associate Dean for Undergraduate Admissions and Student Development, Academic Director of SMU-X, and Associate Professor of Accounting (Education) in the School of Accountancy, Singapore Management University.**

Dr Seow Poh Sun is the Associate Dean for Teaching and Curriculum, and Associate Professor of Accounting (Education) in the School of Accountancy, Singapore Management University.