Research Text

The Role of Business Analytics

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According to Harvard Business School, business analytics is the "process of using quantitative methods to derive meaning from data to make informed business decisions" (Gavin, 2021). The idea of using collected data to grow a business is not new to organisations. However, in today's business world, data analytics is becoming more and more vital in exceeding customer expectations and is key for business growth. Through vast amounts of data readily available to purchase, collect and analyse due to increasing amounts of people online, "it truly is the best of times from a data availability perspective" (Hauser, 2007). With new technologies and methods constantly being created, we will inevitably continue to see businesses value analytics and seek to improve their interpretation of their data (Hauser, 2007). In the article "Marketing analytics: the evolution of marketing research in the twenty-first century", William J. Hauser puts forth the simple "MAIP" model to highlight the elements that go into any business analytics project. As shown below, the model stands for mining, analysis, interpretation and presentation. Each element in the process is equally as important as the next, and each step must be completed in full before continuing onto the following.

MAIP: Data → Analysis → Interpretation → Presentation

The data mining stage involves the collection of data to be analysed. First-party data is businesses' own data collected through website analytics, displaying trends or buying behaviour. Second-party data is when a business shares data with non-competitors in a similar area in order to both benefit. Sharing data with non-competitors allows a business to know when to target a customer with an ad or discount to attain their business. Lastly, third party data is when data is collected through publishers and packaged for businesses to buy. During the data mining stage, it is crucial to "identify limitations and potential problems with the data and to make sure that the data appropriately meets the needs and requirements of the project" (Drozdenko & Drake, 2002)**.** Next up is the analysis stage of the process, whereby meaning and insight is drawn up on the collected data. The data will be carefully analysed and put through many different types of statistical tests to test the data's significance and analyse any trends and events within the data.

Furthermore, we have the interpretation stage, which is highly overlooked in many business analytics projects. However, interpretation is perhaps the most significant step in any analytical project today. Interpretation is the whole reason for collecting and analysing data and where interpretive models such as trend analysis and quasi-experimental designs are used. The data must be well understood, and business context must be applied and interpreted to make better data-driven business decisions. Data does not speak for itself, and if the person analysing it does not have any business knowledge, the data simply loses its value. Data must be translated by those who "understand analytics and speak the language of business" in order to turn databases into something more meaningful and actionable (Bhandari et al., 2014). "People that have those capabilities as well as an understanding of business contexts are going to be the ones that will add the most value and have the greatest impact"

(Hammond, 2018). Lastly, presentation is the final stage in Hauser's MAIP model for business analytics. Presentation is where data findings are presented through data visualisation tools such as graphs, charts and tables. A well thought out presentation of findings is necessary to better communicate the outcome to all members of an organisation who might not understand nor need to understand every single bit of data (Miller, 2021). Choosing the right presentation is key to ensuring it fits the data and the audience viewing it. The benefits of business analytics and data-driven insights to an organisation can be enormous. A business's decision-making process becomes much more powerful, has greater revenue and better operational efficiency. The prevailing belief of many experts and researchers is that "if you don't use data, you're going to fall behind" (Hammond, 2018).

Business analytics can be implemented into any business sector such as HR, economics, accountancy. However, one of the leading sectors increasingly implementing analytics is the marketing sector. Marketing analytics is described as a "focus on coordinating every marketing touch point to maximise the customer experience as customers move from awareness, to interested, to qualified, to making the purchase" (Hitachi Consulting Group, 2005). Furthermore, it also involves the "collection, management, and analysis - descriptive, diagnostic, predictive, and prescriptive - of data to obtain insights into marketing performance, maximise the effectiveness of instruments of marketing control, and optimise firms' return on investment (ROI)" (Wedel & Kannan, 2016). Readily available large databases have allowed marketers to gain accurate insights into the further needs and wants of the consumer. For large organisations to keep up modern marketing, a "data-driven process fueled by analytics", their marketers must adopt an analytics role (Stitch, n.d).

An advantage to modern marketers is the abundance of analytic platforms readily and easily available today. Platforms such as Google Analytics and Hubspot can give data insights into how many customers are accessing the site per day, how long they are on the site for, if they are repeat customers etc. Social media sites such as Facebook, Twitter and Instagram also provide analytics such as the reach of a marketing campaign, levels of engagement and how well a campaign did in comparison to others. In order to find out how a firm's site is performing on the search engine, how they rank, and how many people click on their site, can be analysed through google search console and semrush. Many of these models use machine learning in order to create a consumer profile, in which they will eventually target individual consumers and the most profitable ones in order to maximise their efficiency (Stitch, n.d). Alongside these platforms, knowing the attribution rate, the potential churn of customers and predicting the chance of customers leaving through probability can aid in drawing up conclusions on the consumers. Predictive analytics can be used to forecast future sales, how many future sales an ad campaign will produce, and future consumer behaviour through predictive models such as time-series and multiple linear regression. Additionally, regression models can be utilised to study customer preference, satisfaction and feedback. Prescriptive analytics can also be implemented in deciding which outcome will give the best results, such as deciding between a marketing or product strategy, through A/B and hypothesis testing (Gavin, 2021). Presentation is also an essential element of marketing analytics. Graphs and presentations must be drawn up to make data figures and stats more visible and clearer to the

whole organisation. Applications such as Tableau Public, Google Fusion Tables, and MATLAB translate data outcomes into maps, charts, and graphs for the particular audience.

Although there are many benefits of analytics in the marketing sector, there also comes the challenge of consumers' privacy. With consumers creating accounts, signing up to email lists or accepting a website's cookies, the organisation must implement data security measures and policies to ensure their consumers' sensitive information and data is protected. Organisations must obtain their consumers' trust and not invade their feed too much, or else consumers will begin to inhibit feelings of mistrust towards the organisation. (Davenport & Harris, 2007)

In conclusion, through good marketing analytics, businesses will gain insight into consumer behaviour, predict future trends, cut costs, and continuously improve their decision-making process. Furthermore, it is no wonder that in the 21st-century, businesses are thirsty in seeking marketing analytics to "better understand the marketplace, the competition, and, most importantly, the consumer (Jones, 2006).

References

Analytics University (2017) Marketing Analytics: Predictive Analytics in Marketing. 18th September 2017. Available at: https://www.youtube.com/watch?v=4vkCJcbfXV4 (Accessed: 24 November 2021).

Batrinca, B. and Treleaven, P.C. (2014) 'Social media analytics: a survey of techniques, tools and platforms', AI & society, 30(1), pp. 89–116. doi:10.1007/s00146-014-0549-4.

Bhandari, R., Singer, M. and Van Der Scheer, H. (2014) Using Marketing Analytics to Drive Superior Growth. Available at: https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/using-marketing-analytics-to-drive-superior-growth (Accessed: 6th December 2021).

Cao, G. and Tian, N. (2020) 'Enhancing customer-linking marketing capabilities using marketing analytics', The Journal of business & industrial marketing, 35(7), pp. 1289–1299. doi:10.1108/JBIM-09-2019-0407.

Davenport, T.H. and Harris, J. (2007) 'The Dark Side of Customer Analytics', Harvard Business Review, 1 May. Available at: https://hbr.org/2007/05/the-dark-side-of-customer-analytics (Accessed: 8 December 2021).

Drozdenko, R.G. and Drake, P.D. (2002) Optimal Database Marketing, Sage, Beverly Hills, CA.
Gavin, M. (2021) Business Analytics: What it is & Why it's Important. Available at: https://online.hbs.edu/blog/post/importance-of-business-analytics (Accessed: 6th December 2021).

HaleyMarketingGroup (2017) Understanding Marketing Analytics. 16th June 2017. Available at: https://www.youtube.com/watch?v=y7w2SnLKFy4 (Accessed: 23 November 2021).

Harvard Business School (2018) A Growing Demand for Data Expertise. Available at: https://online.hbs.edu/blog/post/a-growing-demand-for-data-expertise (Accessed: 6th December 2021).

Hauser, W.J. (2007) 'Marketing analytics: the evolution of marketing research in the twenty-first century', Direct marketing : an international journal, 1(1), pp. 38–54. doi:10.1108/17505930710734125.

Hitachi Consulting Group (2005) Customer and Channel Analytics. Available at: https://hitachiconsulting.com/page.cfm?ID=customer_channelanalytics (Accessed: 6th December 2021).

Jones, S.K (2006) Creative Strategy in Direct & Interactive Marketing, 3rd ed., Racom Communications, New York, NY.

Miller, K. (2021) 5 Business Analytics Skills For Professionals. Available at: https://online.hbs.edu/blog/post/business-analytics-skills (Accessed: 6th December 2021).

MultiView (2020) The Importance of Big Data & Analytics in Marketing. 29th January 2020. Available at: https://www.youtube.com/watch?v=kblH-9QrRzU (Accessed: 23 November 2021).

Stitch (no date) Marketing Analytics: Definition and Uses. Available at: https://www.stitchdata.com/resources/marketing-analytics/ (Accessed: 6th December 2021)

Wedel, M., & Kannan, P. K. (2016). Marketing Analytics for Data-Rich Environments. Journal of Marketing, 80(6), 97–121. http://www.jstor.org/stable/44134975

WordStream (no date) Marketing Analytics - Success Through Analysis. Available at: https://www.wordstream.com/marketing-analytics (Accessed: 5th December 2021).