

## The marketing of the future, a question of numbers. How big data and statistics will increase our sales

Software that is able to predict customer choices, sensors that measure the interest of window shoppers and algorithms to decide, according to weather forecasts, which products to discount during Black Friday. The future of sales is linked to data. And, for once, Italy is at the forefront.

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by Marco Ferrero

Imagine going out on the balcony, intrigued by a strange buzzing noise from outside, and, seeing a drone in supermarket livery carrying a parcel to your door.

Imagine you open this package and discover inside the products you were thinking of buying last night, but that you have not yet had the time to order.

By combining data mined from your buying habits with the information obtained from your social networks and from other sources, the store has anticipated your wishes and has delivered to your home what you need.

Even before you drew up the shopping list.

All right, we have not yet reached this point (also because we shoot down drones even when they appear in the open country, imagine if they show up on our house balcony!), but the era of data-driven commerce, based on data analysis and programmed on customer habits, is already a reality.

Today big data and new predictive analysis techniques allow merchants to use both historical data (e.g. the commercial results of previous years) and current data (like economic performance indicators, data obtained from social media, etc.) to develop reliable models of the future behaviour of their customers.

The purpose is not, as in the above science fiction example here, to anticipate the choices of individual buyers - a practice that in reality would definitely be seen as invasive, as well as uneconomical - but rather get reliable estimates on the general trend of sales in certain geographical areas and in some periods of the year. Crucial information for those who must decide, for example, which products to supply to a warehouse, what to showcase, when to start a promotion, what discounts to apply and so on.

Italy, for once, is definitely at the cutting edge in this "race to data" and among the Italian regions the title of true excellence is rightly grabbed by the Piedmont.

In fact, in 2015, Turin University opened the first Master's course in "Stochastics and Data Science", which in July of this year graduated the first six data scientists in Italy.

# evo PRICING<sup>2</sup>

The stated goal, explained Professor Laura Sacerdote, coordinator of the course for the Department of Mathematics of the university, is to "teach the building of models, based on the numbers collected, capable of making predictions about the future".

Although the course is not focused exclusively on the trade sector (data scientists are also used in many other areas, from hi-tech to healthcare), it is clear that the possibility of "predicting the future" is of great interest, especially for those involved in sales.

This is confirmed by the success of a startup, Evo Pricing, that is also based in Turin (and London), born about two years ago thanks to the Italian entrepreneur Fabrizio Fantini, who deals with the elaboration of predictive analysis systems for large retail chains all over the world.

Fantini's company expanded in just a few months, from having only one employee to over 50 employees, providing its customers not only models for the likely trend of sales, but also giving accurate advice on the choice of products to be marketed, on product distribution at each point of sale and even on discounts to be applied during the sales period, or during events such as Black Friday.

The information that the company provides is obtained from the data analysis performed by the algorithms developed by the team of scientists and statisticians of the startup. This data is subsequently integrated with the indicators coming from individual store managers in the territory, in the various countries where Evo Pricing's clients operate.

"The managers' experience, combined with the power of data ensures a superior result to what we could get if we relied solely on the managers' experience or solely on the analysis of the data", explains Fantini, who founded Evo Pricing in 2015, after graduating in Applied Mathematics at the European London Business School and after having worked for many years in an important consulting firm in the United Kingdom.

Besides the binomial, apparently contradictory, between human intuition and mathematical algorithms, Fantini and his team also process data coming from many non-company sources, among which are social networks, fashion trends and even the weather forecast. Real big data that contributes to making their forecasting results more precise and reliable.

Now we come to the bad news.

This very advanced form of "foresight" based on numbers, provides reliable results only if we have a very large data set on which to work. For example, it needs historical data on receipts of at least a couple of years, data on goods and on warehouses and much more.

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This is information that only the large retail companies, with extensive sales networks and sophisticated reporting systems, typically have at their disposal. Those running a single store or a couple of shops in a city need not despair. There are numerous solutions adapted to smaller entities that allow the obtaining of marketing intelligence even with much less data available.

Some payment management systems, for example, like the POS for ATMs or software for accounting, provide (generally as additional services) platforms for data analysis capable of analyzing labels and checking which products are purchased more frequently, or indicate the periods of growth or decline in receipts. Some of them also facilitate the "recognition" of regular customers and the tracking of their buying habits through loyalty cards or payments made by mobile phone.

Finally, the most advanced systems not only analyze the existing data sets, but also allow the gathering of new ones.

A Piedmont-based mobile payment platform of a well-known banking institution offers, for example, an "intelligence business software" package subscription for less than 50 euros per month. This package, in addition to monitoring data on sales, allows the detection of customer behavior thanks to digital sensors that track, in a strictly anonymous way, "physical" data like the time spent in the shop, movements within the retail space, purchases made, etc.

In this way it is possible to know, for example, which areas of the store are more interesting, which promotions have attracted the attention of passers-by, how many customers have entered and bought and other important information.

We are certainly not talking about data-driven stores, nor predictive analytics (that is, forecasts based on big data) but, considering the costs of these types of software do not exceed a few dozen euro per month, these platforms, allied once again with the experience of the shopkeepers, can constitute a good starting point to improve sales and grow revenues.

In short, the "data revolution" is already underway.

And, even if for now no drone will deliver our shopping directly to the terrace of our house, even the classic "neighborhood shop", most likely within a few years, will be able to offer us a more and more customized service based on our needs and with an even more personal touch. All this, fortunately, without losing the small shop uniqueness because "the human element" such as competence, courtesy and the intuition of the shopkeeper, will continue to make the difference.