Eye tracking in retailing

An investigation conducted by market research company IPSOS has shown that consumers decide on the purchase of more than 40% of all supermarket products while in the store and almost 20% of the items purchased are done on impulse, with no prior purchase plan in mind.

This article was written based on input made available by the Neuromarketing Research Center, Behavior and Brain Lab (reference Prof. Vincenzo Russo) and by the Retail Brand Communication Observatory (reference Prof. Francesco Massara).

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as adapted by Hippo Zourides

According to this research, almost two thirds of the decision-making process of a consumer is made while in your store.

This is very significant, as it outlines the need to pay more attention to our display methods at store level and how we can influence purchasing patterns by applying what is known as the 'neuromarketing' criteria.

As she goes through your shelves, the consumer processes a great deal of information before she decides on her final purchase.

This research confirms that, statistically proven techniques do exist to help you plan your layouts and improve your profitability.

Some of the factors that will influence the shopper's decision do not only cover shelf positioning but also the specifics of the label and packaging design to differentiate themselves from other products.

There are many studies and techniques to advise retailers about the best way to display and sell products. However, many of these processes do not influence all the stimuli that the modern consumer requires during her decision-making process.

Neuromarketing, and in more specifically eye tracking, makes it possible to enhance the visibility of the on shelf products more objectively and the outcome is measurable.

Among the most interesting parameters analysed by the researchers are:

- **Dwell time** (the amount of time, in milliseconds, spent looking at the area of interest)
- **Number of fixations** on the area of interest
- **Time to first fixation** (time, in milliseconds, elapsed between exposure to the image and the first display of the area of interest
- **Number of area reviews** (how many times the participant looks back on the same area of interest, i.e., re-interpretation).

Research phases

The whole process consists of several phases that the consumer goes through

The first phase of approaching the shelf is based on the identification of the category: it takes place from about 8–5 metres away and includes a time span of 2–6 seconds.

The phase of understanding the logic of the shelf follows: it takes place between 6 and 2 metres away and lasts about 1–3 seconds. This is a delicate phase since it can influence the behaviour of choice. If the shelf is not easily understood, the risk of abandonment is high.

The final phase of analysis and choice can last from 4 to 40 seconds, depending on the degree of complexity of the product and takes place in the space of 1 metre or less (50 cm) from the display. In this phase, purchasing habits have a predominant role and the variables of the product's 'marketing mix' also have relevance.

The very first moments in which the category is decoded (and the shelf maps are built) take on very high importance in terms of visibility because, if the brand cannot be seen in those few milliseconds, the chances of the product being considered decrease considerably.

With such reduced times, neuroscientific techniques offer a useful contribution for measuring the capacity of the product to return to the expected format, distinguishing itself effectively. But, as mentioned before, the physical characteristics of the product (Packaging) and the information (Label) written on the labels are also important.

Methodology

'Neuroscience' and 'neuromarketing' is the science of how to analyse the visual effect of labels and packaging through the measurement of eye movements, but also on the emotional reaction

that the stimulus manages to provoke.

Technically, the eye tracker is a physical device that uses a type of illumination close to infrared, in combination with high definition cameras, to project light into the eye and record the direction in which it is reflected by the cornea. Advanced algorithms are then used to calculate the position of the eye and determine exactly where the gaze is focused

The methodology allows us to study and measure visual behaviour and the smallest eye movements, since the position of the eye can be mapped several times per second.

Amazing results

The outcome of a survey concerning the effectiveness of some labels involving experts and non-experts of the specific product category, is very illuminating.

In a research conducted with the Sommelier Association of the Lombardy area, from the visual analysis of the label of a wine brand with an eye tracking device, it was observed that the attention of expert consumers (sommeliers or wine connoisseurs) is focused on different aspects of the label, as compared to the vision of non-experts (an average consumer). The inexperienced person looks at areas that do not attract the attention of the sommeliers, such as the certification of origin, the alcoholic content and the size of the bottle.

Instead, they may look at the brand name, its variants and then check the shelf price. Evidently this is the information that the average consumer

Heat Map of a shelf – Red (most visual attention), yellow (middling) and green (least attention)

Visual interest on a gondola display can vary from shelf to shelf. In this display, it happened that the top shelf got the least attention.

understands about wine and which, consequently, processes with greater interest.

Lessons for retailers and manufacturers

Label designers would do well to use this technology to decide on label design, dependent on who their target market is.

For example, expensive wines that are sought by connoisseurs could have a specifically designed label to appease the buyer's expectation, while the details on a cheap table wine bought by non-discriminating shoppers could enjoy a somewhat altered label design.

Private label designers should also consider what are the most important aspects of the brand/product selected by most of their target audience and ensure that such details are enhanced in the label design to make it more accessible to the shopper.

Through eye tracking, the interpretation of data on 'fixations' and 'reinterpretations', combined with the analysis of 'dwell times', represents a good reconstruction of what the brain commands to the eye and attention of the shopping audience. **SR**
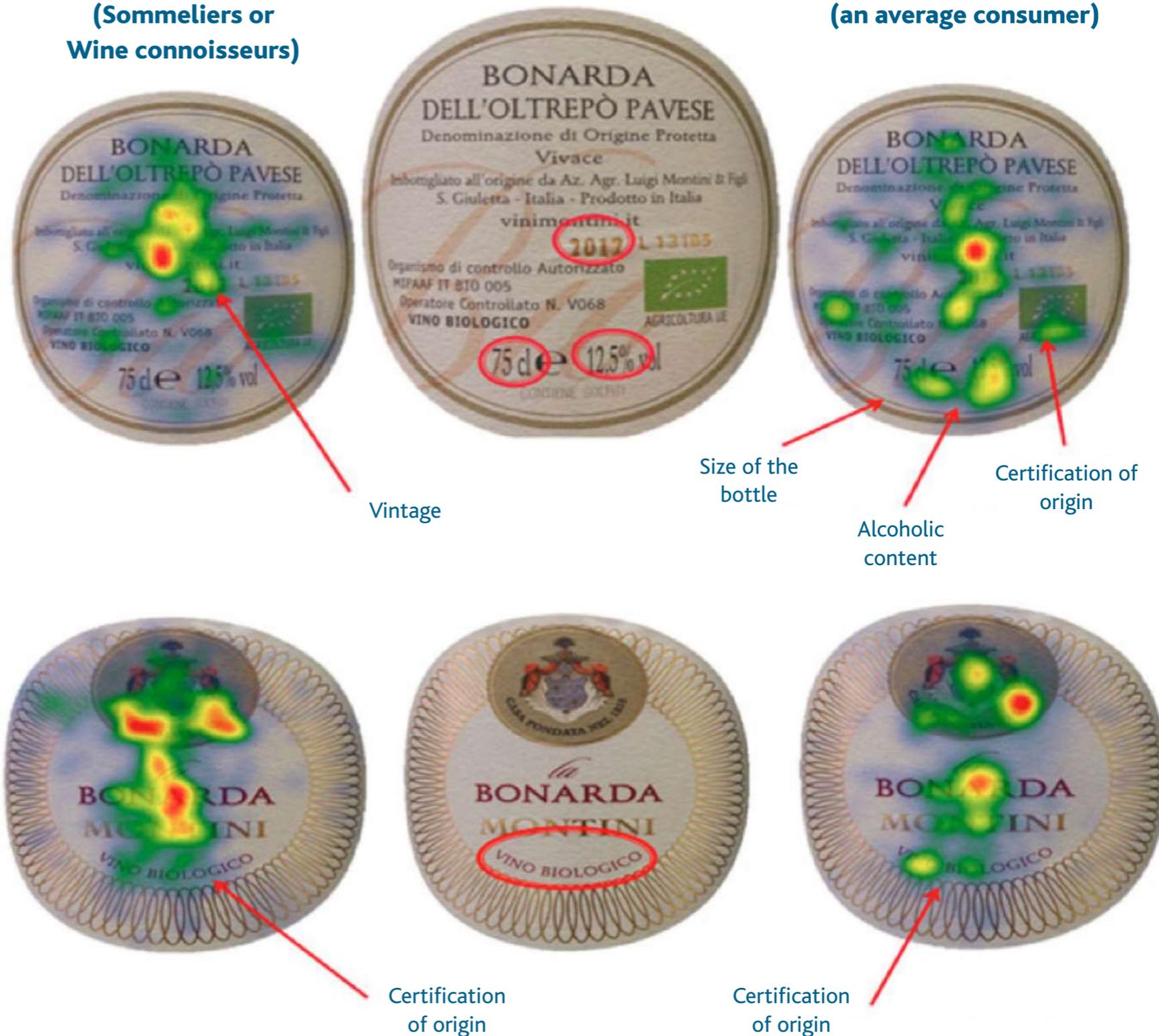
Antonello Vilardi

Intensely involved in the modern aspects of distribution marketing, with specific reference to organised sales networks, Antonello Vilardi has written three books: *Commercial intermediation in the grocery sector* (2010), *Complementary promo-merchandising* (2014) and *Fidelizzare la Clientela*

Expert consumers (Sommeliers or Wine connoisseurs)

Non-experts (an average consumer)

Vintage

Size of the bottle

Alcoholic content

Certification of origin

Certification of origin

Certification of origin

Labels: what do experts (sommelier) and non-experts (inesperti) look at?

Red indicates where the vision is mostly concentrated, Yellow shows a little lesser visual contact and Green the least visual concentration. Where there is no colour, there is no eye contact