

Disruptive Innovation: A Study in the Capsule Coffee Industry

Coffee capsules dominate the coffee market at the expense of roasted coffees. The capsule segment has been showing double-digit growth, already accounting for 60% of current coffee consumption, according to Nielsen. Delta Q coffee capsules brand belongs to Grupo Nabeiro Delta Cafés, a Portuguese company created in 1961, which is known for its “Human Face Management” model. Since its foundation, it has developed a social responsibility strategy that incorporates the needs of all its stakeholders, reinforcing the features of dialogue, responsible entrepreneurship and disruptive innovation.

In this study, the company aimed at responding to customers’ requests regarding new coffee capsule extraction systems development. The new system, the subject of this study, is characterized by the inverted extraction, here presented with a prototype and using experimental disposable cups. It was important for the company to find the best designation for the new system and, in this sense, neuroscience was applied to the customer behavior study with the new system. The results are shown in this article.

Method

A total of 136 participants (51.47% male and 48.53% female) were recruited, with an average age of 37 years, out of a total of 294 registered volunteers. From these 136 subjects, 47.8% were Delta Q consumers, whereas 52.2% were not.

The following stimuli (visual and sensory) were selected for comparison: two different coffee capsule extraction systems, characterized by a traditional

extraction and an inverted extraction, respectively; four possible names for the new inverted extraction system and two types of disposable cups, a traditional espresso cup and a new cup, created specifically for the inverted extraction system.

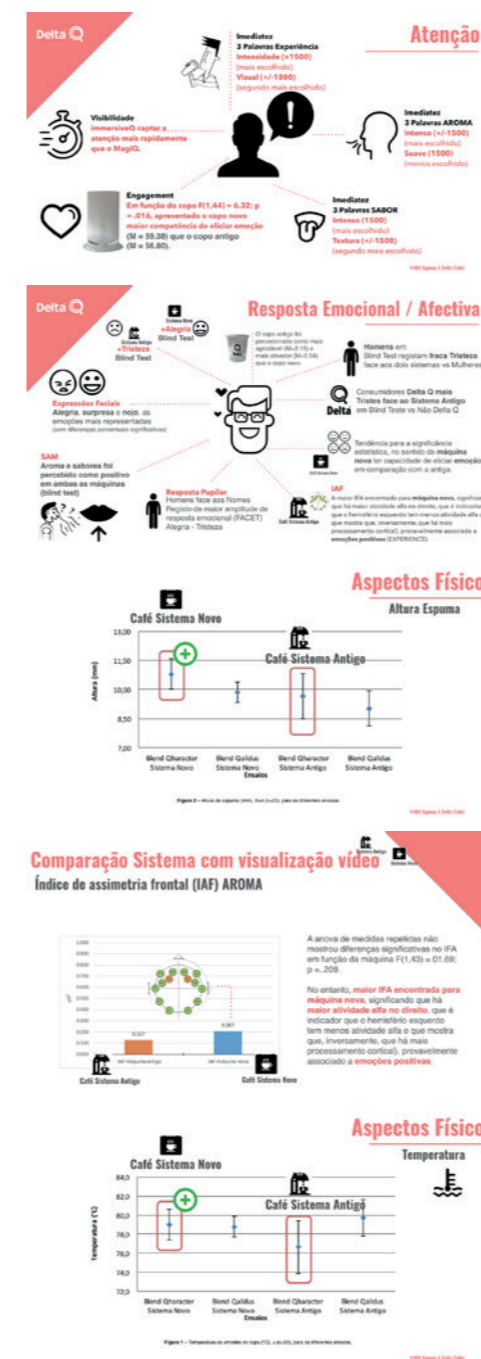
There were four distinct study levels: a focus group study, a sensory panel study, a neuroscience study and a physicochemical study. Demographic data,

several subjective reporting scales and a final questionnaire were applied at all study levels. Measures included EEG, facial action coding, eye-tracking and GSR.

In the first three study levels, the participants were asked to evaluate the aroma and the taste of two coffees, one from each system, without visualization of the extractions (blind test) and using the SAM scale. Later, the participants assessed the aroma and taste of another two coffees, but this time with the display of the extractions (test with experiment). They could only view one system at a time. The results of these tests evolved towards a set of neuro insights based on the crossing of all valid data, transversal to all studies that were carried out.

Results: Brand value

What do customers value in a coffee brand? Results show that 40.5% of the participants select their coffee based on brew intensity! When questioned about their ideal technological features of a coffee device, 38% said they wanted a portable extraction system, whilst the most important feature of a coffee machine was its practicality (35.7%). Additionally, 16.7% of the participants dislike the fact that most capsules available in the market are not compatible with all systems. When asked about what made them loyal to a coffee capsule brand, participants stated the taste and quality of the coffee as the most important factors (63.9%).



Experience profile

The new inverted system was perceived as more innovative (43.4%) and this was the most valued element of the experience. 69.1% considers that the inverted system transforms the experience of having a coffee. 80.1% would change to the new system if they had the opportunity! 90.4% considered moving to the inverted system a positive change. The words most associated with the inverted system were: innovation, interest and enthusiasm. With respect to the traditional system, they associate it with normality, tradition and security.

What about the product?

Regarding the brew aroma, the best results were obtained with the inverted system, with the test with experiment (38.2%). The aroma of the espresso extracted with a traditional system, in a blind test, was perceived as worse (43.4%).

In an identical proportion, the espresso from the inverted system was evaluated as having the best taste, in the test with experiment (44.9%). The espresso from the traditional extraction system was considered the one with the worst taste, in a blind test (39.7%).

Nonetheless, although as a trend the new system showed greater ability to evoke emotions, both extraction systems were associated with a physiological activation (pupillary dilatation).

Figure 1: Index of Frontal Asymmetry: a positive Index of Frontal Asymmetry was found in the new system for the experience visualization in EEG assessment, which suggests a positive relation with the new experience system.

Conclusions

The results of the range of studies that were developed showed the relevance of this type of research.

Combining the four levels of study, namely neuroscience study, focus group, sensory panel evaluation and physicochemical study, it was possible to draw a general customer profile and extract communication keywords.

After identifying the fundamental drivers according to the client’s initial briefing, the paradigm and the objectives of the study, its development was designed in a logic of 360 around the brand, the product / system, the experience and communication: that’s what we call NeuroInsight.

Final thoughts

With a study carried out under guaranteed conditions of exemption and suitability, it was possible for our organization to once again provide a service of extreme relevance to a company, this time in the agri-food sector - more precisely in the coffee roasting industry.

We do not just work brands. Our area of expertise (more than proven) goes far beyond the final product and the study of buying behavior. In this case, the study we conducted supported the development of an innovative system.

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