## A technical success, but a marketing failure

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In 1997, a new product was introduced that had Food Scientists scrambling to try it. It was a scientific marvel according to some since its properties seemed to challenge the principles normally associated with the flow of liquids. I was lucky enough to sample this distinctive drink at a conference; and yes, it certainly was different.

So what made it different, and why did it never really catch on with the public?

The beverage called "Orbitz" was developed by the Clearly Canadian Beverage Corporation of Vancouver, B.C. It came in five or six unusual flavour combinations which some of you may remember. The concept was based on small spheres or beads being suspended in the beverage. Curiously enough, the spheres never rose to the top, nor did they sink to the bottom of the bottle. I've had five bottles in my office for over twenty years and the little balls are still dispersed throughout the liquid even though they have only been shaken-up once or twice in all that time.

The ingredient line contains the usual items - water, high fructose corn syrup, citric acid, sodium citrate, flavour, and colour. But it's the other two ingredients, gellan gum and xanthan gum, that contribute to the gravity defying behaviour of the beads.

A flavoured syrup is trapped within the gel-like beads. They are suspended in a sweetened liquid which has a complementary flavour. In vanilla-orange Orbitz, the beads contain an orange-flavoured syrup while the liquid has a more subtle vanilla flavour. The outer membrane of the beads is very soft and easily ruptures when you squeeze them between your tongue and the roof of your mouth. This releases the stronger flavour of the orange syrup to give your taste buds a bit of a hit.

The gum in the liquid part of the beverage changes its viscosity (i.e., thickness) just enough to create a neutral buoyancy effect and trap the beads within a network of weak cross-linkages. From a rheological perspective, this is fascinating. However, consumers were not quite as enamoured with it.

One of the things that bothered people when they drank Orbitz was the texture of the beads. I recall that someone described them as being "mucosal" – not a very appealing way to describe a drink. Others found that their tongue kept trying to push the small beads out of the way since they instinctively seemed like foreign material in the liquid. The beverage performed so poorly in the marketplace that Time magazine gave Orbitz the dubious distinction of being one of the top-ten worst beverage ideas in the twenty-five years between 1985 and 2010.

Within a year or so after its launch, Clearly Canadian pulled the product due to lack of sales. I was lucky to find some on a shelf in a rural general store, so I bought them.

Apparently, these are collectors' items, so now I've got a good excuse to hang onto them, and they will continue to occupy a place of honour with the rest of my treasures on the shelves over my desk.



Vanilla-orange Orbitz in its distinctive lava lamp shaped bottle.