

TASTING WATER TO IMPROVE CUSTOMER OUTCOMES

A case study

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INTRODUCTION

Aussies love their water. They know that water should not taste as if it came from the back of a billabong. Moreover, they also shouldn't need to boil it to make sure it is safe to drink. Still, even though the water may be safe, many people consider it to be quality water only if it tastes refreshing.

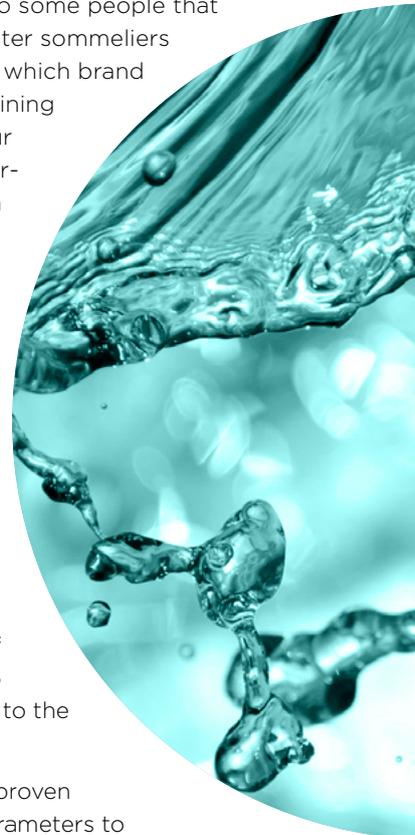
Two out of three Australian household owners (65%) are satisfied with the quality of their tap water, according to the Australian Bureau of Statistics. However, of those dissatisfied, over 60% of them attributed their dissatisfaction to the taste of the water (Australian Bureau of Statistics, 1998). While this reference is not very recent, nothing much has changed over the past two decades. Experience in the United States validates these results. From focus groups to surveys, people commonly judge the quality of their tap water by its taste and clarity (Goetz, 2014). Also, the many tweets sent around the world that contain the words "tap water" confirm the idea that consumers judge a utility's performance through the aesthetics of water (Prevos, 2012). From the consumer's perspective, taste is an important indicator to assess potential health risks (Breslin, 2013). The aesthetic quality and the perceived safety of water are inexorably linked. The Victorian Department of Health has labelled the taste of water an indirect health risk because it can motivate people to seek unsafe or unhealthy alternatives (Department of Health & Human Services, 2016).

Gaining high customer approval requires more than a government-stamped certification that water is "safe to drink." Every single customer deserves safe water.

However, consumers demand not only safe water, but they also demand good water. They require that the water delivered to their homes be clear, refreshing, and palatable in every way (Burlingame, 2015). The taste of water is of such importance to some people that exclusive restaurants employ water sommeliers to advise their customers about which brand of bottled best enhances their dining experience. The Doemens Savour Academy in Germany runs a four-day training course to become a water sommelier.

Coliban Water started their initiative to ensure that water at the customer's tap measured up to such high quality standards for each of their nineteen systems. They figuratively took to the road in search of affirmation that not only the treatment and distribution of the water was beyond reproach, but that taste and odour were up to snuff as well. The tasting tour of 19 tap water sources opened their eyes to the customer experience.

Water utilities have consistently proven capable of applying scientific parameters to minimise contaminants. Customer complaints are often the only available gauge of the perceptions that customers have of water quality.



Customer Engagement & Water Quality

The relationship between physical and biological parameters and the customer experience is a constant matter of debate in the literature. However, the customer experience cannot be described with differential equations or captured in tables and graphs. One of the reasons for this complexity is that many parameters outside the control of the water utility can influence the taste experience (Krishna & Morrin, 2008; Woods et al., 2011).

The approach applied to taste testing described in this case study does not rely on the physical science, but applies the principles of social science to obtain actionable intelligence. While the physical sciences are ideal to design and operate water systems, this approach is not capable of adequately understating human experience. The social sciences are equipped to deal with the subjective human experience, which makes them more suitable to understand complex phenomena such as the taste of water.

This paper presents a case study of an approach to taste testing used in food marketing that can make a water utility, especially those that manage water from many different systems, more empathetic towards the needs and wants of customers. This taste testing approach is not only an exercise in internal marketing, but it is also a method to obtain valuable intelligence about water quality to positively influence operational and investment decisions.

THE TAP CRAWL PROCESS

Coliban Water is a government-owned regional water and sewerage utility, providing potable water to some 75,000 customers in central Victoria. The 49 towns in its 16,550-square kilometre service area north of Melbourne range in size from the city of Bendigo, with 44,000 connections, down to Serpentine where 85 houses cluster around a treatment plant. Water is sourced from 35 reservoirs, various rivers and two groundwater sites. It is a dry part of the country, and river flows fluctuate widely from hour-to-hour, day-to-day, season-to-season, and year-to-year. One of Coliban Water's premier challenges is that the quality of the water varies widely amongst the many sources. With such a variety of water sources and types of catchments, managing the organoleptic experience of customers is a constant struggle.

Coliban Water began by collecting drinking water samples at the taps from the 19 water systems the day before the tasting began. They asked for employee volunteers, without pre-selection; no training, just colleagues from the rank and file.

This method is called hedonic testing which is commonly used in food marketing and occasionally in tap water (Webber, Atherton, & Newcombe, 2014). This process does not rely on small amounts of expert tasters to provide an objective view, but it requires a significant number of untrained, naïve subjects providing their subjective opinions (Schröder, 2003).

The concept of consumer value is one of the main pillars underpinning the theory of market differentiation. This book takes an interdisciplinary approach to the analysis of satisfaction in relation to the consumption of food, with both food science and consumer science playing central parts. It approaches food quality from both the technical and the consumer satisfaction perspectives, and assesses the roles of management and regulatory tools in delivering food quality for all. Each area is discussed in detail, using the appropriate technical terminology, but keeping the text accessible to readers from both academic traditions, as well as to non-specialist readers.



Figure 1. Water Flavour Wheel (Based on Suffet et al., 1999).

Customer Engagement & Water Quality

The research method was deceptively simple: “How pleased are you with the taste of this water?” the volunteers were asked, and answers ranged from “Very Pleased” to “Very Displeased,” on a seven-point Likert scale. Employees also used the Water Flavour Wheel (Figure 2) to ascribe qualitative descriptors to the samples. For simplicity, an outer ring showing the types of chemicals associated with each taste descriptor had been removed from the wheel (Suffet, Khiari, & Bruchet, 1999).

This method could be perceived as being too subjective to yield useful information. The simple truth is that consumer standards in the kitchen have little if anything in common with test tubes, contaminants, and chemical tolerances. Subjective consumer appraisals are infinitely more complex, more nuanced, and they are more difficult to communicate than laboratory results. However, that very subjectivity allowed the Tap Crawl to isolate a slice of customer satisfaction that the utility had never examined: What customers thought when drinking tap water sourced from the faucet. Bringing samples from distant water sources not normally tasted by Coliban Water employees brought the customer experience into the office.

Pilot Study



Figure 2. David Sheehan, General Manager Water Quality Performance & Regulation, taste testing the waters.

Coliban Water initiated the Tap Crawl taste-testing event, a tongue-in-cheek name to internally promote the importance of the taste of water (Goetz & Prevos, 2016). They set out to create more than cheeky byplay. The journey started in 2014 with an internal taste test for inquisitive employees. The objective was not only to collect intelligence about the taste of the water but also to increase employee empathy with customers in areas where the water might not taste as good as expected.

Each volunteer signed on for a taste tour of the waters of the 19 water treatment plants managed by Coliban Water. Staff gleaned insights into the customer experience, and they captured that emotion right at the tap, no matter how remote from the water treatment plant.

Coliban Water conducted several employee Tap Crawl sessions since its inception in 2014. Each time employees flocked to the volunteer lines, with several Coliban Water Board members joining in the event too.

For all its simplicity, the Tap Crawl dragged employees out of their comfort zone. Throughout their careers, some of them assessed tap water using scientific measurements of many parameters. Other employees had spoken to unhappy customers about the taste of water but had not experienced it themselves because

most of them live in Bendigo. Each employee that participated has a unique perspective on the taste of water. Now, by acting on the consumer's side, the employees of Coliban Water became proxies of the overall customer experience throughout the region. Each of the Tap Crawl events generated discussion about the taste of water and the intricacies of each of the systems. The taste of water was elevated from something that customers complain about, to a topic of importance.

Customer Engagement & Water Quality

Engaging with Customers

So far, the internal Tap Crawls have triggered employee empathy for the customer's experience and started a search for customised approaches to taste issues among the 19 supply areas. However, something was missing. What did the end user think of the various sources of tap water?

Coliban Water decided to hone in on customer voices, opening tap water taste opportunities to the public for eight of the 19 different glasses of water from Coliban Water's service area. The samples were carefully selected to include the best and the worst scoring towns from the employee sessions.

Coliban Water took to the streets in March of 2017 at Lake Weeroona in Bendigo. The lake and reserve sit on 18 hectares crafted from a dusty mining hollow. It is a place where locals come to jog, cycle or row, where tourists hop on the Talking Tram, and the perfect meeting place for Coliban Water's staff to set up a Tap Crawl with samplings from eight community systems.

This public version of the Tap Crawl started under the noontime sun on a bright autumn day. Coliban Water's employees asked what passers-by thought about the taste, smell, and appearance of the eight different water samples. The samples were chosen to reflect the full spectrum of taste experiences, as judged by the employees. The event was fun, and it offered visitors a glimpse at the people behind the corporation.

Enter Lloyd Davies, who had come from a nearby neighbourhood to indulge a bit of curiosity. Like other participants, he was intrigued by the blind taste-testing opportunity — waters from Cohuna, Bendigo, Goornong, Bealiba, Inglewood, Heathcote, Rochester, and Trentham, each proffered in unlabelled jugs, were on offer. After ranking water samples by taste, smell, and appearance, employees revealed the sources. Lloyd got a chance to exchange names and shake a few

hands with employees. He received a water bottle to thank him for participating, just like all the other tasters (D'Agostino, 2017).

David Richardson, a member of Coliban Water's Board, attended the event. For Richardson, it was essential to get out of the boardroom and engage directly with customers. Also a member of the community, Richardson felt that the customer interaction was significant and stated, "People generally don't think about water, as to whether it is good or bad. They just turn on the tap and use it without thinking about it."

When asked about whether he felt people judge the safety of the water by its taste, Richardson agreed that many of the participants did equate taste with water safety. "Overall, the Tap Crawl was an engaging way to gather valuable customer feedback, while having a bit of fun in the process," said Richardson.

"From a board member's perspective, the Tap Crawl was a fascinating and tactile way to remove the awkwardness and boringness of having people think about water," said Richardson. He added, "I feel strongly that we, as an organisation, must continue to engage with our customers. We need to get to know them better by holding such events as the Tap Crawl." When asked if he would recommend that other utilities conduct their version of the Tap Crawl, Richardson answered, "Definitely."



Figure 3. Public Taste Testing at Lake Weeroona, Bendigo.

Bad tasting water might be safe to drink, but customers want more than safe water; they want good water. Also, water utility employees deliver services at arm's length from the customer, which separates them from what customers experience. This case study shows that water tasting by employees is an effective way to start to better understand both these tensions.

Hedonic testing is a subjective method but an effective way to obtain intelligence about the taste of water and it helps to increase empathy for the customer's experience. Given that water utilities use risk management methods that originated from food manufacturing, it seems only natural to also seek inspiration from this industry in measuring the taste experience.

The Tap Crawl method is very useful for water utilities that manage various water sources or where network conditions influence the local taste experience. It is a fun activity that brings together employees from all parts of the organisation to stand in the shoes of the customer.

Perhaps the central message of Tap Crawl is to recognise the human aspect when managing a water supply, rather than to rely on the physical sciences. And if gaining the customer's support for new prices means understanding how they judge water quality, then we as an industry should take note. After all, it's the customer that ultimately defines the value of water, not the utility.

THE AUTHORS



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