Operations Management Education Review 15: 33-58.

Bumble Bee and Blockchain

Yen-Ting Lin, David Pyke, Richard Clarke, and Aubree Corporandy[1]

Knauss School of Business, University of San Diego, USA

Abstract. This paper presents a case study that examines Bumble Bee's decision whether to implement a blockchain solution for tuna sourcing from individual fishers across thousands of islands in Indonesia. Sustainable fishing and ethical sourcing are key considerations in the fishing industry. Having a credible system for ensuring the fish are indeed sustainably sourced is crucial, and blockchain technology holds the promise of providing just that. The case presents students with some of the pros and cons of implementing a blockchain solution, and the class discussion allows them to support their decision. The paper includes a teaching note for instructors that provides a guide to leading the discussion, as well as substantial information about Bumble Bee's decision. Finally, it outlines new issues that Bumble Bee faced after the initial decision on blockchain. The discussion can lead to a framework for companies that are considering blockchain solutions for their supply chain challenges.

Keywords: supply chain, tracing and tracking, natural resource, sustainable fisheries.

1. Introduction

Bumble Bee Foods' Chief Information Officer, Tony Costa, reflected on his position at the precipice of dramatic change in the world of commercial fishing. In a time-tested industry where many practices had not changed for over 100 years, consumer demand and a fervent commitment to sustainable practices were now changing the market landscape. Bumble Bee was committed to rigorous quality standards and to protecting the world's oceans, while ensuring ethical treatment of employees and workers throughout their supply chain. Yet canned tuna was a highly competitive market, and consumers were price sensitive. Bumble Bee had endured severe financial stress in the past decade, and Costa was well aware that expensive initiatives had to be carefully examined. He wondered if blockchain technology could be a cost-effective solution to ensuring that Bumble Bee's tuna were sustainably sourced. Would it even be feasible when their tuna was sourced from

1. The case is prepared as the basis for class discussion rather than to illustrate either effective or ineffective management. The case is not intended to serve as an endorsement or a source of primary data. The authors gratefully acknowledge the assistance of Tony Costa, CIO of Bumble Bee.

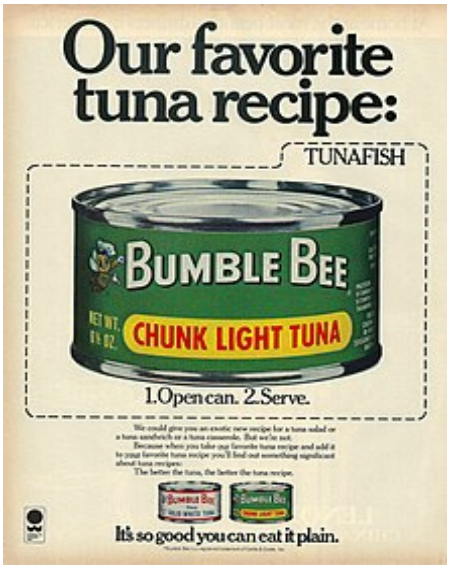
thousands of individual fishers scattered across a multitude of islands in Indonesia? Even if a consumer could track the source of their canned fish to an individual island or fisher, would they be willing to pay more for this product?

2. Bumble Bee's History

Bumble Bee Foods was originally formed in 1899 with the name Columbia River Packers Association (CRPA). The Bumble Bee brand first appeared in 1910, and fifty years later Castle & Cooke acquired CRPA and changed the company name to Bumble Bee Seafoods. With the relocation of headquarters to San Diego, CA in the mid 1900s, Bumble Bee rose to become an anchor business in the city. By the 1970s, tuna was San Diego's third-largest industry with over 40,000 employees. See Figures 1a and 1b.

Figure 1a: An albacore tuna, typically over 3 feet long and over 130 pounds.

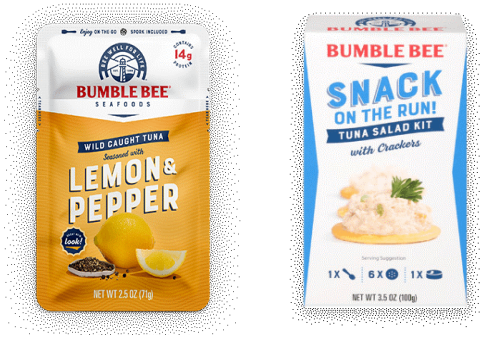
Figure 1b: Magazine ad for Bumble Bee tuna in 1977.



After the mid-1980s, the company ownership changed multiple times, including one transition which had resulted from a bankruptcy in 1997. In 2005, when the company was owned by Connors Brothers Limited, it was renamed Bumble Bee Foods, LLC. Lion Capital acquired the company in 2010 and weathered a number of challenges. During the period of 2011 to 2013, for example, Bumble Bee apparently conspired with rivals StarKist Co. and Chicken of the Sea, Inc. in a tuna price fixing scheme. The company pleaded guilty in 2017. A subsequent bankruptcy in late 2019 led to the acquisition of the company by Fong Chun Formosa (FCF) Fishery Company in early 2020. All parties expected Bumble Bee to operate business as usual.

Since the early 2000s, the market for canned seafood changed dramatically. According to the U.S. Department of Agriculture, consumption of canned tuna dropped 42% per capita from 1986 to 2016. In response, Bumble Bee began introducing select new products and packaging, including a new tuna pouch, a product for which sales increased 40 percent in 2019, and a more easily recycled canned tuna. They also debuted a microwaveable Bistro Bowls product under the Canadian Clover Leaf brand, which drew a significant number of new customers, and a new version of the "Protein on the Run" snack pack. See Figure 2. In an interesting departure from their traditional products, they also entered into a partnership with Good Catch, which created imitation seafood.

Figure 2: Bumble Bee Tuna in a pouch and a Snack Pack. *Source: Bumble Bee website.*



Despite all of their challenges, in 2019 Bumble Bee was still responsible for 41% of canned albacore and 13% of canned "light meat" tuna sales in the United States. According to bankruptcy records, Bumble Bee sales in U.S. and Canada sales totaled $933 million in 2019, and they employed 500 people globally, including 168 workers at their corporate offices in San Diego and New Jersey.

Bumble Bee had a banner year in 2020, partly due to the global COVID-19 pandemic, which saw consumers stocking up on shelf-stable products and healthier foods. Revenues surpassed $1 billion in 2020.

3. Tuna Supply Chain

In 2020, the process of creating Bumble Bee's main product, canned tuna, followed the structure illustrated in Figure 3. Most of Bumble Bee's tuna were caught off the shores of countries in Southeast Asia, including Thailand, Vietnam, and thousands of Indonesian islands. Fishing vessels worked areas of the ocean where they knew, or hoped, schools of tuna would be located. These areas were called *fisheries*.

Figure 3: Bumble Bee's Supply Chain