
KOOKIE KUTTER BAKERY: CRUNCH TIME

Ailsa McBride wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

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Version: 2017-11-27

In January 2017, 60-year-old Kevin Ceretti, owner of the Kookie Kutter Bakery in Sackville, New Brunswick, Canada, had to make some challenging decisions about his bakery to ensure it would succeed in the long run. His financials were precarious, as a result of rising costs for labour, equipment, marketing, and distribution. Ceretti had decided to enlist a small marketing firm to assist him with marketing decisions based on his situation at the time; for instance, should he pursue in-store sampling, and consider using new product labelling, despite the related expenses? The marketing firm would also help him to consider the options available to him for growing his business, which included introducing new flavours and products, reaching out to new markets, and offering in-store samplings. Given the potential opportunities and challenges—both marketing and financial—Ceretti wondered what he should do to keep Kookie Kutter Bakery alive.

HISTORY

Ceretti had graduated from New Brunswick Community College Cooking School in 1979. In March 1992, he gave up a career in food service and decided to buy a locally owned bakery in Sackville (see Exhibit 1). Since then, Ceretti had moved into the wholesale distribution channel, invented four new lines of cookies, and made the Kookie Kutter Bakery brand known in Atlantic Canada for its best-selling item—the ginger snap cookie. The bakery was approaching its 25th year of operation, and had gross sales of approximately CA\$800,000,¹ an increase from its initial sales of \$150,000 in 1992.

The bakery was located in the small rural town of Sackville. The town was home to Mount Allison University, and had a population of approximately 5,500 residents (with an additional 2,000 students during the school year), most of whom spoke English as their mother tongue. Sackville was a quaint and rural town nestled between two of the biggest cities in the Maritimes—Moncton was only a half-hour drive and Halifax, a two-hour drive away.

Kookie Kutter Bakery was 2,300 square feet, and it prided itself on being a local manufacturer. The bakery adhered to the hazard analysis and critical control points (HACCP) quality control guidelines (a rigorous

¹ All currency amounts are in Canadian dollars unless otherwise specified.

food safety program) as required by its customer, Costco Wholesale Corporation (Costco). Ceretti received advice from a nutritional panel in Fredericton, which provided him with information on product labelling, nutritional value, and “best before” dates. He regularly sent his cookies to be analyzed for quality control by Canada’s Smartest Kitchen (a globally recognized food development centre) in nearby Prince Edward Island. He had never received reports of incidents of illness from his cookies.

Over the years, Kookie Kutter Bakery’s products had been moving up the shelves in supermarkets, but had been recently bumped back down to the bottom shelves at certain retail locations. Ceretti hoped that in the future he would be able to introduce the four cookie lines to all of the locations that stocked his products and once again move up the shelves, so that his products would be at customers’ eye level—where purchase decisions were made more easily and spontaneously. He dreamed of being able to open a new production location, introduce some new flavours in the future, and improve the marketing of his products. Ceretti wondered what he needed to do to make these much-needed changes happen, given his challenging financial situation.

SALES

Distribution Channels

As of 2016, Kookie Kutter Bakery distributed and sold its products to Sobeys Inc. (Sobeys), owned by Empire Company Ltd.;² Atlantic Superstore;³ Costco;⁴ and some Your Independent Grocer⁵ stores throughout the Maritime Provinces (New Brunswick, Nova Scotia, and Prince Edward Island) and Newfoundland. Sobeys was the main distributor in Atlantic Canada for all four of Kookie Kutter Bakery’s cookie lines (ginger snap, vanilla flax, honey & cinnamon, and chocolate chip), while Costco and Atlantic Superstore carried only the ginger snaps. Sales were best at the Your Independent Grocer in Sackville.

Outside of the Maritimes, Ceretti had reached Ontario through some Costco and Sobeys stores, but only with the ginger snap cookie. However, Sobeys had recently agreed to carry all four flavours, which would be implemented soon. Similarly, Farm Boy 2012 Inc. (Farm Boy), a supermarket chain in the Ottawa region, had expressed interest in selling the Kookie Kutter Bakery brand.⁶ Lastly, Kookie Kutter Bakery had also reached the U.S. New England area (comprising the six states of Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut) through several Your Independent Grocer stores, but again only with the ginger snap cookie, its best-selling stock-keeping unit.

Marketing

Unfortunately, Ceretti was restricted in terms of the amount of in-store marketing that could be done for his products. He was not allowed to have point-of-sale displays in the stores he was distributing to, but was looking to have that changed as soon as possible. The only marketing used was the packaging of the product

² Empire Company Ltd.’s sales as of 2016 were \$25 billion. Source: Empire Company Ltd., *Annual Report 2016*, 2, June 28, 2016, accessed January 17, 2017, www.empireco.ca/wp-content/uploads/2017/03/Empire-AR-2016_ENG-FINAL-SEDAR.pdf.

³ Owned by Loblaw Company, which had revenue of \$46 billion as of 2016. Source: Loblaw Companies Limited, *2016 Annual Report – Financial Review*, 1, February 22, 2017, accessed March 12, 2017, http://s1.q4cdn.com/326961052/files/doc_financials/2016/annual/2016_AR_ENG.pdf.

⁴ Costco Wholesale Corporation’s sales as of 2016 were \$116 billion. Source: Costco Wholesale Corporation, *Annual Report 2016*, 1, December 15, 2016, accessed February 12, 2017, file:///C:/Users/Ailsa/Downloads/2016 per cent20Annual per cent20Report per cent20PDF per cent20- per cent20FINAL.pdf.

⁵ Your Independent Grocer (also owned by Loblaw Company, had revenue of \$46 billion as of 2015. Source: Loblaw Companies Limited, *2016 Annual Report – Financial Review*, 1, February 22, 2017, accessed March 12, 2017, http://s1.q4cdn.com/326961052/files/doc_financials/2016/annual/2016_AR_ENG.pdf.

⁶ Farm Boy was a private company so sales information was not available. Source: Farm Boy, “About Us,” accessed January 26, 2017, <https://www.farmboy.ca/about-us/>.

itself, and occasional in-store sampling. The Your Independent Grocer in Sackville had a stand that promoted Kookie Kutter Bakery's products, but the information was barely noticeable to customers (see Exhibit 2). The location of the production facility (Sackville) was written only on the bottom of the package; therefore, the products were not explicitly labelled as "locally produced."

Competition

There was plenty of competition within the cookie market. Among the big brands were companies such as Nabisco Foods Group, Stauffer Biscuit Company, Great Value Company (Wal-Mart Stores Inc.'s brand), Anna's Swedish Thins by Lotus Bakeries, Archway Cookies, Murray Cookies, MI-DEL, and Trader Joe's. However, these brands were store-bought cookies and "did not necessarily offer the same healthy and school-friendly benefits that Kookie Kutter ginger snaps did," explained Ceretti. The chocolate chip cookie market had even more major brand competitors, including Dare Foods Limited, Pepperidge Farm, Archway Cookies, Nabisco Foods Group, and more. Again, although it could be argued that Kookie Kutter Bakery cookies were a healthier choice, this quality might not have been a concern for those who were buying chocolate chip cookies in the first place.

Other competition included Mrs. Dunster's Inc.⁷ and Purity Factories Ltd.⁸ Mrs. Dunster's Inc. was located in Sussex, New Brunswick, and it too offered ginger snap and chocolate chip cookies, but its cookies were not vegan, and the company focused on doughnuts as its main product. Purity Factories Ltd. was located in St. John's, Newfoundland, and offered a wide variety of products, including cookies (ginger snap, coconut, and chocolate chip), crackers, jams, and confectionary. Mrs. Dunster's Inc. distributed within a similar geographic range as that of Kookie Kutter Bakery (Atlantic Canada and New England), whereas Purity Factories Ltd. distributed its products across Canada. Both brands had a presence in a more supermarket chains than Kookie Kutter Bakery did.

KOOKIE KUTTER BAKERY'S OFFERINGS

Product

As of 2016, Kookie Kutter Bakery's product line consisted of four flavours; however, Ceretti was also looking to add some new products. Two new flavours of cookies he considered adding were pumpkin and coconut snaps, which he would develop from scratch, and two new product options he considered were oatcakes and shortbread cookies, recipes for which were being passed down to him from nearby Nova Scotian companies.

Unique Selling Features

Ceretti prided himself on having unique cookies, and for good reason. None of the cookies contained egg, dairy, or nuts (therefore were school-friendly), nor did they contain any trans fats or preservatives. The cookies also had a long shelf life, and the ginger snap, vanilla flax, and chocolate chip cookies were vegan products. With this wide range of features, Kookie Kutter Bakery products appealed to consumers of all ages, and were a healthy alternative to the many other cookies available.

⁷ Mrs. Dunster's, "Mrs. Dunster's Kitchen," accessed January 17, 2017, www.mrsdunsters.com/mrs-dunsters-kitchen/.

⁸ Purity Factories, "Purity," 2016, accessed January 17, 2017, <http://purity.nf.ca/>.

COST STRUCTURE

The retail price of Kookie Kutter Bakery cookies varied depending on the retailer. At Costco, the cookies were priced at \$3.99, with an estimated 13 per cent markup to the retailer. In Sackville at the Your Independent Grocer, the cookies retailed at \$3.79. However, a recent problem for Ceretti was that other grocery stores, specifically in Ontario, had been raising the prices of his cookies to \$4.99 and keeping the additional dollar of profit for themselves.

The breakdown of Ceretti's costs was estimated to be 20 per cent food costs and 30 per cent labour costs, but labour costs would increase to 50 or 60 per cent depending on the day and the number of batches required in his labour-intensive plant. To be cost-effective, the bakery needed to make nine batches of cookies a day. Ceretti paid his employees an hourly minimum wage, which had steadily increased over the years, from \$7.50 in 1992 to \$10.65 in 2016, with the selling price to his customers having barely changed over that period, except for adjustments to inflation. In short, this situation was problematic, as Ceretti's selling prices had not increased to cover the rising labour costs.

OPPORTUNITIES

Despite these hurdles, there were several opportunities for Ceretti to consider. The first was that new markets were available. Ceretti considered extending his four products into Ontario and potentially also into Quebec (which was geographically much closer), but he would need to examine the current competition in these markets before pursuing this. Within the past year, he had also hired both a sales manager and a marketing manager to assist him in reaching out to consumers and in advertising the products. The only problem with this assistance was the burdensome extra charges, owing to both commissions and base rate fees.

Ceretti had also created a template for point-of-sales displays (see Exhibit 3). Very few stores had allowed him to put up these signs, and when they did, it was for only a limited time. The signs were costly to produce and, because they were made of cardboard, required frequent replacement in the winter seasons. He had also developed a bulk box design to sell three packs of cookies as a snack option.

Another opportunity was in-store sampling, which had been a great promotional tool in the past. At Costco in Ontario, for example, Ceretti had paid for an in-store sample at the 10 stores he distributed to, and his sales rose from 100 packages to 600 packages on the day of the sampling. Although in-store samplings were a great option, they were also costly—at approximately \$3,500 per demonstration.

Ceretti was also looking into developing new flavours of cookies, including pumpkin and coconut, both of which were being tested by the small marketing firm he had hired to help him. He also had the option to introduce shortbread cookies and oatcakes, which were established recipes being passed down from other companies. The last option for Ceretti to consider was creating a product designed specifically for children, which would involve colourful packaging, dyeing the cookies (yellow, red, and blue), or using sprinkles to attract the attention of young children. This option would appeal to vegan parents who wanted a school-friendly and healthy snack for their children.

MARKET TEST

Since there were several new flavours to consider, Ceretti decided to do a taste test of the two new flavours he was looking to develop, pumpkin and coconut. He was also interested to see whether having a more prominent local label would attract consumers' attention, given the current lack of in-store promotion for

Kookie Kutter Bakery products. The marketing firm found the following initial information when preparing for the exploratory research.

Local Products

Unfortunately, many studies on local products had reported disagreement about what the term “local” meant for consumers.⁹ However, it had been found that consumers were more likely to purchase local produce because they believed it was fresher, tastier, and more environmentally friendly due to the reduction in the carbon footprint of transportation.¹⁰ A 2015 study using strawberries to examine whether a local label influenced perceptions of taste found that people who knew the strawberries were local rated them higher in terms of freshness, flavour, colour, size, and uniformity, indicating the impact that a local label could have on perception.¹¹ A study of processed food products (blackberry jam) found that having the label indicate the broad geographical area in which the product was made (e.g., Canada) was more beneficial than indicating where, specifically, within the country it was made; however, a label that showed a specific geographic location (e.g., Sackville) was more attractive than a label naming just a province (e.g., New Brunswick).¹² As a last source of information, the marketing company found a study recommending that companies clearly mark place names, provide images, and emphasize the quality of the food because many consumers (in the United Kingdom, where the study was conducted) found that local foods were more expensive and difficult to find in supermarkets.¹³

Two Experiments

With this knowledge in hand, Ceretti had the small marketing firm conduct exploratory research at the local university. The marketing firm decided to examine the effect of a local label on consumer preferences for Kookie Kutter Bakery’s ginger snap cookies, and to perform a taste test of the coconut and pumpkin cookies. To do so, a table was set up in the student centre of the local university, and two separate experiments were carried out.

The first experiment tested the effects of a local label on flavour perception. It was believed that having a local label on a cookie would invoke a more positive perception of the flavour than a cookie without the local label. To test this hypothesis, two identical ginger snap cookies were placed on the table, one with a “Local” label on the front of it, and one with a “Non-Local” label on the front of it. Passing students (23 in total)¹⁴ were then asked to try each cookie and rate it on several seven-point scales including “Unsavoury ↔ Delicious”

⁹ Damian C. Adams and Alison E. Adams, “De-Placing Local at the Farmers’ Market: Consumer Conceptions of Local Foods,” *Journal of Rural Social Sciences* 26, no. 2 (2011): 74–100, accessed February 16, 2017, <http://journalofruralsocialsciences.org/pages/Articles/JRSS%202011%2026/2/JRSS%202011%2026%202%2074-100.pdf>.

¹⁰ John L. Stanton, John B. Wiley, and Ferdinand F. Wirth, “Who Are the Locavores?,” *Journal of Consumer Marketing* 29, no. 4 (2012): 248–261, accessed February 16, 2017, <http://search.proquest.com.libproxy.mta.ca/docview/1022702986?OpenUrlRefId=info:xri/sid:wcdiscovery&accountid=12599>.

¹¹ Chenyi He, Zhifeng Gao, Charles A. Sims, and Xin Zhao, “Does Local Label Bias Consumer Taste Bud and Preference: Strawberry Sensory Experiment,” *IDEAS Working Paper Series from RePEc* (2015), accessed February 16, 2017, <http://ideas.repec.org/p/ags/saea15/196874.html>.

¹² Wuyang Hu, Marvin T. Batte, Timothy Woods, and Stan Ernst, “Consumer Preferences for Local Production and Other Value-added Label Claims for a Processed Food Product,” *European Review of Agricultural Economics* 39, no. 3 (July 2012): 489–510, accessed February 16, 2017, <https://academic-oup-com.libproxy.mta.ca/erae/article-abstract/39/3/489/452655/Consumer-preferences-for-local-production-and?redirectedFrom=fulltext>.

¹³ Ursula Penney and Caroline Prior, “Exploring the Urban Consumer’s Perception of Local Food,” *International Journal of Retail & Distribution Management* 42, no. 7 (2014): 580–594, accessed February 16, 2017, <http://search.proquest.com.libproxy.mta.ca/docview/1651163707/fulltextPDF/6CB0B56B513844E0PQ/1?accountid=12599>.

¹⁴ This number was by no means significant, but represented the first step in ongoing research.

and “Flavourless ↔ Strong Flavour.” At the end of the two rating sheets, the students were asked to pick which cookie they preferred: the Local or the Non-Local.

The second experiment set up two ginger snap cookies, a coconut cookie, and a pumpkin cookie in a line on a table. Students (47 in total) were asked to complete the same rating scales as the first study, and then rank the four cookies in order of preference (1 for their favourite and 4 for their least favourite).

Results

Participants in the studies consisted of mostly undergraduate students between the ages of 17 and 22; in the first experiment 43 per cent were female and 57 per cent were male, and in the second experiment 55 per cent were female and 45 per cent were male. The results from the exploratory experiments indicated that most participants preferred the “Local” cookie (78 per cent) to the “Non-Local” cookie (22 per cent), despite them being the same cookie (see Exhibit 4). The most preferred cookie was the ginger snap (ranked number 1 by 42 per cent of participants), while the least preferred cookie was the pumpkin (ranked number 4 by 59 per cent of participants). Coconut was well-liked by most people, as 27 per cent of participants ranked it as their favourite, and it was ranked as the least favourite by only 20 per cent of participants, most of whom (five individuals) commented they did not like coconut to begin with.

The students were more perceptive than expected, and several participants from both experiments asked whether the two ginger snap cookies were the same, particularly in the first experiment (five students wrote that they believed they were the same cookie while others speculated so verbally). This outcome indicated the labels might not have tricked the participants. Furthermore, compared with the first experiment, participants in the second experiment perceived more differences between the ginger snap cookies, which could have indicated that participants in the second experiment were distracted by the additional two flavours and did not focus on the similarity in taste. Alternatively, the taste of the coconut and the pumpkin cookies may have interfered with the taste of the second ginger snap, leading to greater differences in perception in the second experiment (see Exhibit 7). From the results of these experiments, it was concluded that the participants may have held a positive bias toward the local label, and that the pumpkin cookie was not a success in the test run.

LOOKING FORWARD

Ceretti weighed his options. He was eager to develop new flavours and examine new ways of marketing his cookies. He was considering emphasizing the “made locally” appeal. After the preliminary market research undertaken locally in 2017, he needed to decide whether to invest in a full-scale marketing research study at a cost of approximately \$20,000, despite the financial challenges he was facing. Could he afford it? Could it potentially reap benefits?

Ceretti consulted with various companies that had experienced difficulties similar to his own, including a cash crunch. One of these companies was Golden Grown, located in Western Manitoba. Following some failed attempts at opening stores of his own across the province, instead of pursuing a less risky franchise or using an exclusive distribution system, the owner and founder of Golden Grown was forced to declare bankruptcy—a mountain of debt had taken over what had been a beloved business whose products were greatly appreciated by its customers.

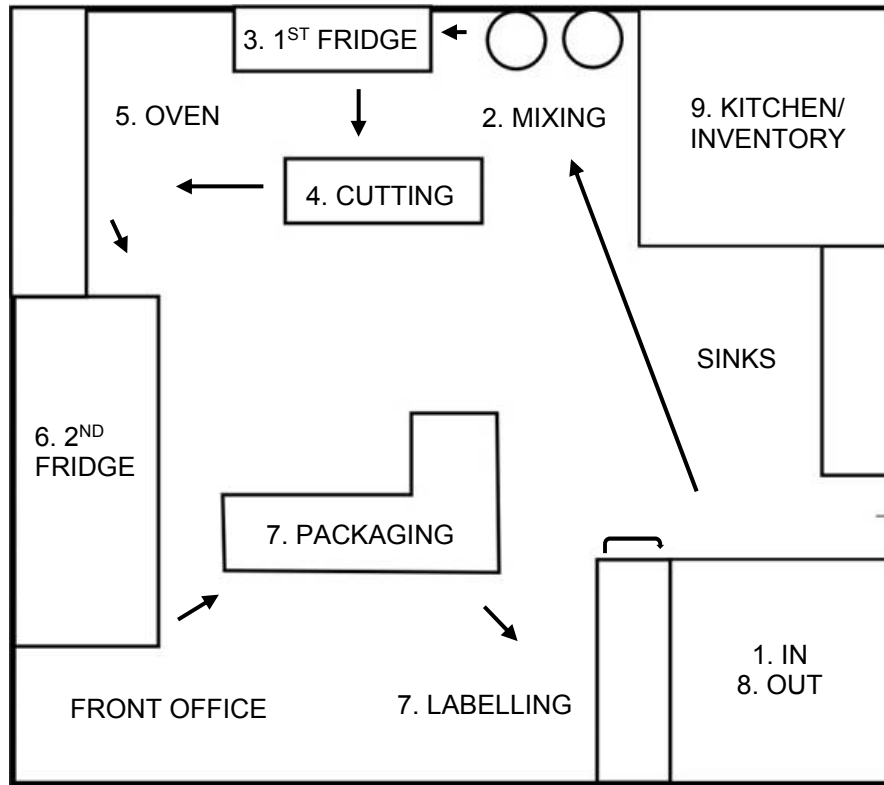
In 2012, Golden Grown’s new owner decided to turn the business into an agro-tourism venture. During the summer months, visitors were permitted to visit the sunflower fields, watch a video on the history of the

plant and farm, acquire some knowledge about sunflowers, and witness the actual production of the plant. Customers were enthusiastic about the opportunity to walk into the field during the summer months with their families, enjoy the fresh air, and understand how sunflower oil was produced—all for a minimal entry fee of \$12.00, which easily covered an afternoon of relaxation and enjoyment. Lines formed at the entrance every day of the week; flocks of school students arrived by bus. Soon enough, this effort at agro-tourism constituted a large portion of the company's income and raised the brand awareness, first throughout the region and then throughout the province.

Ceretti thought he could emulate the same level of success by remodelling his small plant. What would be the result, for instance, if he were to paint the exterior building in attractive colours and decorate it with images reminiscent of local (and internationally renowned) painter Alex Colville? Would it help to achieve success if he were to reorganize the inside of his plant to accommodate exclusive tours for tourists—along with cookie tasting—especially in summertime? The plant would be thoroughly cleaned, and idle spots could be left to accommodate tourists. The “front office” could become a viewing area for them. Ceretti could play a small video relating the history of the plant and its role in the local community. He also entertained the idea of creating a special “Colville” cookie, for which he could replicate a simplified version of (simplify) some of Colville's emblematic images, such as the train and the horse, on top of a cookie. Some of Colville's images could even be reproduced on the packaging Ceretti used. Ceretti was not short of ideas. However, the current layout of his plant was not conducive to a tour environment (see Exhibit 1), therefore extensive remodelling would be required if this opportunity was pursued. Moreover, any of these options would need to be considered with Ceretti's tight budget in mind. What should the marketing firm recommend to Ceretti to continue growing his business and to achieve success in the future?

The author wishes to thank Olivier Mesly for his assistance, guidance, and research in the development of the case.

EXHIBIT 1: KOOKIE KUTTER BAKERY PLANT LAYOUT



The plant was approximately 2,300 square feet.

1. Receiving Area (In)
This was the area for receiving and unloading incoming ingredients. It also contained boxes ready to be filled with cookies, as well as large tanks of molasses.
2. Mixing Area
This was the area where ingredients were mixed together, and it consisted of two mixing apparatuses, both of which held large metal bowls containing the ingredients to be mixed.
3. 1st Cooling Area
This was the first fridge where cookie dough was stored. The dough was moved from the mixing bowls into yellow buckets, and was then placed in the refrigerator until it reached the right consistency to be cut.
4. Cutting Area
Once the cookie dough had reached the right consistency, it was moved from the yellow buckets into the dome-like pipe in this machine, and was then shaped, cut, and put onto cookie sheets.
5. Oven
After the cookies had been cut and placed directly onto cookie sheets, they were moved to the oven, which was right next to the cutting machine.
6. 2nd Cooling Area
The ovens were very close to the second cooling area, where the cookies were stored to cool before being packaged. They were then taken out of the cooling area from a door on the other end, near the front office, and then left to cool there until weighing and packaging.

EXHIBIT 1 (CONTINUED)

7. Packaging and Labelling

This station was a counter where cookies were packaged and weighed. Once the appropriate weight for each package had been determined, the cookies passed along the conveyor belt and under a metal detector to another counter, close to the labelling counter.

8. Shipping Area (Out)

The last stage of the process was to prepare the packages of cookies for shipment, for which they would exit the same doors that the raw ingredients had come in.

9. Kitchen/Inventory

This was the storage area for the inventory, including sugar, canola oil, corn syrup, and prepared cookie dough.

President/Owner Kevin Ceretti



Street View of Kookie Kutter



Indoor View of Kookie Kutter



Source: Company documents.

EXHIBIT 2: KOOKIE KUTTER PROMOTION



Source: Company documents.

EXHIBIT 3: POINT-OF-SALES DISPLAYS



Source: Company documents.

EXHIBIT 4: NON-LOCAL VERSUS LOCAL COOKIE (EXPERIMENT #1)

Cookie (Said to be Non-Local) $n = 23$.

H_0 : The local and non-local products are deemed identical in taste.

H_1 : The local and non-local products are not deemed identical in taste.

"Non-Local" Cookie, in %						
	1	2	3 (neutral)	4	5	
Tasteless	0	22	30	35	13	Strong flavour
Unsavoury	0	22	57	17	4	Delicious
Not fatty (taste)	17	30	39	13	0	Fatty (taste)
Dry (touch)	39	35	13	13	0	Oily (touch)
Not bitter	22	48	26	0	4	Very bitter
Not sweet	4	26	48	13	9	Very sweet
Not salty	23	32	41	5	0	Very salty
Not sour	61	22	17	0	0	Very sour

Did you find that there was an aftertaste for this cookie? Yes (87 per cent), No (13 per cent).

Cookie (Said to be Local) $n = 23$.

Question that was asked verbally: How do you find the taste of the *local* cookie?

"Local" Cookie, in %						
	1	2	3 (neutral)	4	5	
Tasteless	0	22	39	26	13	Strong flavour
Unsavoury	0	4	39	52	4	Delicious
Not fatty (taste)	22	39	30	9	0	Fatty (taste)
Dry (touch)	35	22	26	13	4	Oily (touch)
Not bitter	39	35	26	0	0	Very bitter
Not sweet	0	17	48	22	13	Very sweet
Not salty	30	39	26	4	0	Very salty
Not sour	57	26	17	0	0	Very sour

Did you find that there was an aftertaste for this cookie? Yes (70 per cent), No (30 per cent).

After trying both the local and non-local ginger snap cookies, which is your favourite? Please circle your preference. Local (78 per cent), Non-local (22 per cent).

Note: Underlined values indicate the most frequently chosen cookie for that ranking.

Source: Company documents.

EXHIBIT 5: SUMMARY OF FINDINGS (EXPERIMENT #1)

Although the purpose of this experiment was to determine whether there was a difference between the two identical ginger cookies, the sample size was too small to conduct any statistical tests. However, percentage differences could be analyzed and compared between the two ginger snap cookies.

Tabulated results:

Itemized Flavour Description	Non-local (n = 23)	Local (n = 23)	Difference
	<i>In % (rounded numbers) and rank</i>		
Tasteless ↔ Strong flavour	35/4	39/3	Significant difference in strength of taste but not in ranking
Unsavory ↔ Delicious	57/3	52/4	About the same [±]
Taste: Not fatty ↔ Fatty	39/3	39/2	About the same
Touch: Dry ↔ Oily	39/1	26/3	Significant difference in touch and ranking
Not bitter ↔ Very bitter	48/2	39/1	Significant difference in bitterness but not in ranking
Not sweet ↔ Very sweet	48/3	48/3	0/0 (no difference at all)
Not salty ↔ Very salty	41/3	39/2	About the same
Not sour ↔ Very sour	61/1	57/1	About the same

Comments:

1. Surprisingly, when evaluating the same cookie, some participants (less than 50 per cent) perceived a significant difference in touch, bitterness, and strength of taste, even though the cookies were actually from the same production batch.
2. Out of eight measures of assessment, significant differences were found in three.
3. The perceived difference in touch, bitterness, and strength of flavour played in favour of the perceived local product.
4. Both cookies have a significant aftertaste, but it appeared that an aftertaste was more noticeable for the perceived non-local cookie than the perceived local cookie.
5. Finally, it was noted that sweetness displayed exactly the same values for non-local and local cookies.

Conclusion:

Based on this exploratory analysis, it appears that the perception of locally made products fuelled a positivity bias versus non-local products, which corresponded to past research showing that people were more likely to purchase local products, and that having a local label could positively influence the perception of a product.

Note: ± Because the test is highly judgmental, we consider that only a difference of more than one in ranking is significant, i.e., conjoint rankings are deemed not significantly different. For the actual percentage of participants commenting on product characteristic, we consider that anything above a 10 per cent difference is significant. Again, this is only exploratory research. Source: Company documents.

EXHIBIT 6: FOUR FLAVOURS OF COOKIES (EXPERIMENT #2)

H₀: The two ginger snap cookies are deemed identical in taste.

H₁: The two ginger snap cookies are not deemed identical in taste.

Cookie #1: (Ginger A) n = 46						
	1	2	3 (neutral)	4	5	
	<i>In %</i>					
Tasteless	2	13	23	49	13	Strong flavour
Unsavoury	2	15	38	43	2	Delicious
Not fatty (taste)	11	34	51	2	2	Fatty (taste)
Dry (touch)	21	60	9	9	2	Oily (touch)
Not bitter	21	36	23	19	0	Very bitter
Not sweet	9	13	51	28	0	Very sweet
Not salty	34	19	32	15	0	Very salty
Not sour	68	13	13	4	2	Very sour

Did you find that there was an aftertaste for this cookie? Yes (87), No (13 per cent).

Cookie #2: (Coconut) n = 44						
	1	2	3 (neutral)	4	5	
	<i>In %</i>					
Tasteless	2	11	31	44	11	Strong flavour
Unsavoury	11	26	28	24	11	Delicious
Not fatty (taste)	7	24	28	37	4	Fatty (taste)
Dry (touch)	20	35	20	24	2	Oily (touch)
Not bitter	35	37	22	4	2	Very bitter
Not sweet	9	20	37	33	2	Very sweet
Not salty	26	26	22	22	4	Very salty
Not sour	68	20	9	4	0	Very sour

Did you find that there was an aftertaste for this cookie? Yes (61 per cent), No (39 per cent).

Cookie #3: (Pumpkin) n = 43						
	1	2	3 (neutral)	4	5	
	<i>In %</i>					
Tasteless	9	30	22	26	13	Strong flavour
Unsavoury	15	36	30	13	6	Delicious
Not fatty (taste)	34	32	26	9	0	Fatty (taste)
Dry (touch)	43	34	13	11	0	Oily (touch)
Not bitter	30	23	17	30	0	Very bitter
Not sweet	17	32	38	13	0	Very sweet
Not salty	36	32	23	6	2	Very salty
Not sour	57	19	11	11	2	Very sour

Did you find that there was an aftertaste for this cookie? Yes (47 per cent), No (53 per cent).

EXHIBIT 6 (CONTINUED)

Cookie #4: (Ginger B) <i>n</i> = 45						
	1	2	3 (neutral)	4	5	
	<i>In %</i>					
Tasteless	2	19	21	36	21	Strong flavour
Unsavoury	4	9	38	40	9	Delicious
Not fatty (taste)	13	32	38	17	0	Fatty (taste)
Dry (touch)	19	40	23	17	0	Oily (touch)
Not bitter	21	26	28	23	2	Very bitter
Not sweet	9	28	26	38	0	Very sweet
Not salty	43	26	21	11	0	Very salty
Not sour	60	21	11	9	0	Very sour

Did you find that there was an aftertaste for this cookie? Yes (76 per cent), No (24 per cent).

Percentage of Respondents Who Placed Each Cookie at Each Ranking				
Rank	Ginger A (%)	Coconut (%)	Pumpkin (%)	Ginger B (%)
#1 (<i>n</i> =45)	42	27	11	20
#2 (<i>n</i> =45)	30	22	11	37
#3 (<i>n</i> =46)	15	30	22	33
#4 (<i>n</i> =44)	11	20	59	9

Note: Due to non-responses by participants, the *n* values for each cookie are not equivalent and have been amended to exhibit the true number of responses per cookie.

Source: Company documents.

EXHIBIT 7: SUMMARY OF FINDINGS (EXPERIMENT #2) MARIKO

Itemized Flavour Description	Ginger A (n = 46)	Ginger B (n = 45)	Difference
	<i>In % (rounded numbers) and rank</i>		
Tasteless ↔ Strong flavour	49/4	36/4	Significant difference in strength of taste but not in ranking
Unsavory ↔ Delicious	43/4	38/3	Significant difference in deliciousness but not in ranking
Taste: Not fatty ↔ Fatty	51/3	38/3	Significant difference in taste but not in ranking
Touch: Dry ↔ Oily	60/2	40/2	Significant difference in touch but not in ranking
Not bitter ↔ Very bitter	36/2	28/3	Significant difference in bitterness but not in ranking
Not sweet ↔ Very sweet	51/3	38/4	Significant difference in sweetness but not in ranking
Not salty ↔ Very salty	34/1	43/1	Significant difference in saltiness but not in ranking
Not sour ↔ Very sour	68/1	60/1	Significant difference in sourness but not in ranking

In exploratory analyses, the difference between the two ginger cookies (in rankings) was examined using a one-sample t-test between percentages. The percentage of participants who ranked Ginger A as #1 was compared with the percentage of participants who ranked Ginger B as #1. A significance level of $p = 0.05$ was used. Results indicated no statistically significant difference between the number of participants who ranked Ginger A as #1 and Ginger B as #1, $t(44) = 1.952$, $p = 0.057$, so we fail to reject the null hypothesis, which states that the two cookies will be deemed identical in taste.

Comments:

1. Surprisingly, when evaluating the same cookie, some participants (less than 50 per cent) perceived a significant difference in strength of taste, deliciousness, fattiness, touch, bitterness, sweetness, saltiness, and sourness, even though the cookies were actually from the same production batch.
2. Of eight measures of assessment, all (i.e., 100 per cent) showed significant differences.
3. Interestingly, in compared with the results of experiment #1 (i.e., non-local versus local), a greater difference was perceived between the two ginger cookies when the coconut and the pumpkin cookies were also tasted.
4. More than 50 per cent of respondents indicated that pumpkin was their least favourite cookie, and it was the only cookie that more people indicated had no aftertaste.
5. Coconut was popular as a flavour, and its lower rankings were due to those participants who do not like coconut (i.e., 5 individuals).
6. Despite the perceived differences in the qualities of the two cookies, statistical analyses indicate there was no significant difference between the two identical ginger cookies.
7. Conclusion: Offering a greater array of flavours increased the perceived differences between the two ginger cookies. Furthermore, the pumpkin cookie was found to be unpopular, whereas the coconut cookie was ranked highly by approximately 50 per cent of participants.

Source: Company documents.