



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Quality of Life in Potential Expansion Locations is Important to Craft Brewers

Katherine Nesse, PhD
Seattle Pacific University

Timothy Green, PhD
Clemson University

Brooke Ferguson
Appalachian Council of Governments

Received: 06/26/2018

Accepted: 01/19/2019

Abstract

Traditional firm location theory (Weber, Moses, Hotelling, etc) explains firm location decisions in terms of factor prices, relative transport costs of inputs and outputs, and strategic moves to gain spatial monopoly over markets. While these remain centrally important, a number of firms selling directly to consumers have begun to make public claims about the importance of local culture in location decisions. The craft brewery industry is one with the potential for many secondary factors to play a role in location decisions because many breweries treat the production facility as a flagship store. In addition, many recent long-distance expansions have been highly publicized with companies, economic development officials and elected representatives identifying reasons for choosing a location. We analyze the location decision of Sierra Nevada's expansion to Mills River, North Carolina, to determine the relative importance of factors contributing to the location decision. We compiled and analyzed public statements about the expansion location decision made by brewery executives, site consultants and public officials in press releases, blogs and newspapers. We also spoke with people involved in the location decision process. We focus on the four groups of factors: traditional location factors (market size and distance, transportation, cost of inputs), agglomeration and clustering (specialized labor force & support services, mutually supportive competition, education), taxation and regulatory factors (public services, legal framework, tax incentives), and quality of life (cultural amenities, recreation). We found there was a strong focus on quality of life factors and these factors were closely tied to the characteristics that set Sierra Nevada beers apart from other regional craft beers.

1 Introduction

In 2013 Sierra Nevada Brewing Co. expanded its production facilities from Chico, California, to Mills River, North Carolina, a small town in the Asheville area. "The beer culture, water quality and quality of life are excellent. We feel lucky to be a part of this community," said Ken Grossman, the founder and CEO of Sierra Nevada, in a press release (Manley, 2012). As an established brand with production on the West Coast, Sierra Nevada needed to expand production in order bring its expensive-to-transport product to east coast markets at a competitive price. In his statement Mr. Grossman cited two well-recognized determinants of business location: agglomerative and clustering effects as a result of Asheville's strong "beer culture" and traditional location factors like available water. He also mentioned a third reason for locating in Asheville the "quality of life." Sierra Nevada is not the only craft brewer to expand across country, and several other brewers even chose to locate in or near Asheville. New Belgium Brewing Co. also opened a second production facility and taproom in downtown Asheville, and Oskar Blues Brewery opened a production facility, taproom

and resort in nearby Brevard, North Carolina. What has been unusual about these expansions is the degree to which the publicity surrounding them focuses on issues related to quality of life in the destination. In this paper we use the Sierra Nevada expansion case to investigate why craft brewers are talking about quality of life.

The craft brewing industry has expanded exponentially since 2000. Before 2000, the market was dominated by a handful of producers that focused on producing a uniform beer (Gohmann, 2016). Carroll and Swaminathan (2000) argue that this consolidation and uniformity created the conditions to enable small specialty brewers to start up. These small brewers served a local, alternative market for beer. At the same time, many states enacted regulations that allowed for home brewing and enabled small batch production (McCullough et al., 2019). Much of the experimentation and expansion of the craft brewing industry occurred in the few locations with more permissive laws. Since 2000, even more states have changed regulations to accommodate the craft brewing industry (Malone and Lusk, 2016). For example, North Carolina's House Bill 392, signed into law in 2005, lifted a longstanding ban on beers with more than 6% alcohol by volume that had stifled local brewers (Stephen, 2015). These reforms have moved the industry from an oligopolistic competition dominated by a handful of massive companies, to a bifurcated market with a few large producers still dominating the market for inexpensive lagers and multitudes of producers competing in the market for specialty craft beers. The inexpensive light lager market is still oligopolistic, but the craft beer market is monopolistic. It has many producers with beers that are imperfect substitutes, primarily differentiated based on style, brand and place of origin.

As the craft beer industry has grown, so too have formerly small producers. Though most remain relatively small, a growing number are distributing beyond their place of origin and gaining regional and national brand recognition. To meet demand in markets outside of their place of origin, they need to develop production facilities closer to those consumers. This presents them with the age-old problem of finding the optimal location of new manufacturing facilities. The new facilities created in these expansions offer the opportunity to learn more about business location decisions in the context of the craft brewing industry.

The many factors that affect the location choices of firms can be divided into four broad categories. First, classical location theory says the choice of location for manufacturers is shaped by 1) the cost of transporting raw inputs to the factory and final goods to the market and 2) the relative price and quality of necessary inputs including raw materials and labor (Hoover, 1948; Weber, 1929; Moriarty, 1980). Second, a range of place-specific agglomerative and cluster effects have been thought to affect location choice since they were first discussed by Alfred Marshall (Gordon and McCann, 2000; Bergman et al., 1999). Third, though the empirical evidence is mixed, the specific package of taxes & regulations in a place may be an important factor affecting location decisions (Bartik, 1985; Buss, 2001). Acting on this last point, local governments have sought to influence location decisions by offering tax incentives with mixed results (Markusen and Nesse, 2007). Fourth, a relatively high quality of life in a particular place - the availability of natural amenities, good schools, and opportunities for leisure - is thought to be a draw to firms looking to relocate (Gottlieb, 1994).

The connection between quality of life - specifically place-specific nonexportable goods - and business location decisions has been theorized two distinct ways (Gottlieb, 1994). In one, after taking account of more fundamental input and transportation costs, the chief executive would prefer locations that confer a higher "psychic" income on them or their family. In the other, which is less distinct from agglomerative and clustering effects, amenities are believed to attract mobile laborers with sufficient market power to draw employers to them (Gottlieb, 1994). In this study, we propose a third connection: for some businesses, amenities may serve the additional purpose of supporting the company brand. Brian Grossman, manager of the new location and son of Sierra Nevada Brewing founder Ken Grossman, explained the decision like this: "For two years we explored more than 200 sites. Since we're a brewery, water quality and supply were two of many important factors. But to be truly consistent as a company, we focused on things like quality of life and outdoor recreation what first drew my dad to Chico. The Mills River community is the right fit" (Grossman, 2013).

This research explores how appeals to "quality of life" by Sierra Nevada and similar craft breweries fit with our current understanding of location decisions. Specifically, we examine how appeals to quality of life relate to descriptions of clustering and agglomerative effects and attempts to influence incentive packages. We focus on Sierra Nevada's expansion from Chico to Mills River. Our data consist of catalogued quotes from press releases, company and industry blogs, and newspaper and magazine articles. The quotes were

coded and categorized using a framework drawn from location theory. We also interviewed people involved in the location decision to better understand the context and the purpose of the public statements.

We found that discussions of quality of life issues related to the Sierra Nevada expansion describe amenities such as outdoor recreation, environmental stewardship, and community organization for two reasons. First, the amenities were an important draw for management who had to consider whether the new location would be a desirable place for them and their families to live. Second, many of the amenities reflected important aspects of the company's values and brand. In monopolistic competition, product differentiation is the key to carving out a piece of the market. This requires educating consumers about the product as a whole and also communicating how one brand or company is different from another. We found that people involved in the Sierra Nevada expansion both at the company and in local government and site consultant roles focused on the quality of life factors with about the same frequency as they did on factors identified in classical location theory. Furthermore, quality of life factors particularly those related to the natural environment and sustainability were important not only for their own sake but also because they were related to what sets Sierra Nevada beers apart from other craft beers.

2 Literature Review

2.1 The evolution of the brewing industry in the U.S.

Until the late nineteenth century, the U.S. brewing industry was made up of small to medium-sized producers serving local markets. Wider distribution had to wait for improvements in transportation and refrigeration technology (Cabras and Bamforth, 2016; Dighe, 2016). In the first half of the twentieth century, the brewing industry was also heavily shaped by the temperance movement. Federal regulation peaked with Prohibition (1920-1933), which put many breweries out of business, but continued until the 1978 Cranston Act legalized homebrewing at the federal level. States laws preventing homebrewing persisted even afterward, (as late as 2013 in Alabama and Mississippi), which created barriers to entry for potential new brewers (McCullough et al., 2019). The joint effect of continued technological improvements in refrigeration and transportation and state and federal regulation was consolidation in the brewing industry. Between 1900 and 1950, the number of breweries fell by 80% (from 1,806 to 350) even as output increased by 124% (from 46.5 to 104.2 million hectoliters) over the same period (Cabras and Bamforth, 2016).

Even with such consolidation, the four largest producers in 1950 (Anheuser-Busch, Coors, Miller, and Pabst) together served less than 20% of the market (Cabras and Bamforth, 2016). The latter half of the twentieth century saw even more consolidation through mergers and acquisitions by the larger brands, along with further advances in packaging and automation. By 1980 there were only 48 breweries in the U.S., and by 2000 the same four producers (Anheuser-Busch, Miller, Coors, and Pabst) produced 91% of the beer sold in the U.S. (Adams, 2006; Cabras and Bamforth, 2016).

Cabras and Bamforth (2016) date the beginning of the craft brewing industry to the 1965 founding of Anchor Brewing in San Francisco. The industry grew out of a niche market for alternatives to the relatively homogenous light lagers produced by the larger producers (Dighe, 2016; Reid and Gatrell, 2017). In 2017, there were 202 regional craft breweries in the U.S., defined by the Brewers Association as those producing between 15,000 and 6,000,000 barrels per year (Brewers Association, 2018). Though it still produces a small percent of all beer produced in the US, the craft brewing sector is growing even as overall beer consumption is falling in the US (Moore et al., 2016). The popularity of craft beer stems from the sector's ability to supply alternatives to the light lagers offered by the large producers, but also from the fact that some consumers place a premium on goods produced locally (Reid and Gatrell, 2017). As a result, for most of its recent growth the craft brewing sector has consisted of relatively small producers tied to the place where they were founded.

In recent years some of the largest craft breweries, such as Lagunitas and Sierra Nevada, have accessed markets beyond their region of origin. This growth has strained production capacity at their original facilities, and it has presented them similar transportation and logistical challenges to those experienced by larger brewers. As a result, a small number of craft brewers have established second production facilities, and an even smaller share have done so across state lines in locations distant from their region of origin. The

number of these expansions is small relative to the number of craft brewers. Our review of these expansions indicated that most of those that cross state lines are the result of a merger or acquisition. The rarity of such moves is not surprising or out of step with wider manufacturing trends. Expansion and moving is an expensive and risky activity. Among all types of manufacturing firms in the US only about 800 move their location in any given year, only about three relocate between any two particular states, and most relocate or expand to neighboring states (Deller and Tsvetkova, 2015). In short, the emergence of nationally-distributed craft beers has resulted in a small number of high-profile expansions over large distances that have received a lot of press coverage.

2.2 Location decisions in brewery expansions

In press accounts of brewery expansions, company representatives and local economic development officials frequently cite recreational, cultural, and other quality of life factors in their location search, among other considerations. There are four main groups of factors affecting location decisions: basic factor price and quality, agglomerative and cluster effects, local tax and regulatory policy, and quality of life. We acknowledge that all four groups of factors played a role in the decision-making process. Our focus is on whether Sierra Nevada's discussion of these quality of life factors can be explained by currently accepted theory or if we need to broaden our understanding of why these factors are important to a company's location decision. s Manufacturers choose to locate where they can obtain the highest quality factors of production at the lowest cost. The primary trade-off is between the cost of inputs and the transportation of inputs to the production facility and the cost of transporting the final product to the market (Hoover, 1948). Within the location model that Weber (1929) developed, manufacturers balance the cost of acquiring and transporting inputs to the production facility with the cost of transporting the product to market. Industries that rely on rare or costly-to-transport inputs will locate closer to those inputs. Conversely, those industries that rely on ubiquitous inputs or for which the cost of transporting the finished product to market is high will locate nearer their markets. The primary ingredient in beer is water along with some type of malted grain, yeast to convert the sugars in the malted grain into alcohol, and often hops as well (Connor and Schiek, 1997). Of these, water, which is heavy and costly to transport, comprises the largest share. By the logic of the Weber model, breweries will locate closer to markets to minimize the cost of transporting water, so long as water is ubiquitous.

There are several reasons to question the claim that water is ubiquitous. One, variations in local water chemistry vary and can affect the flavor of the beer (Willcox, 2017). Two, Breweries in the Western U.S., including Sierra Nevada, have been forced to reduce their water consumptions due to restrictions imposed to address drought-induced water shortages (Agnew, 2016). Thus, breweries are apt to locate close to markets, but their choice set might be limited by the availability of plentiful high-quality water. As craft brewers become large enough to supply markets beyond their region of origin, the potential cost savings from a second production facility will grow. A key purpose of these new facilities is to reduce transportation costs to new consumers. States with historically few brewers have recognized this and changed their production laws to open up more potential expansion sites (Tremblay et al., 2005).

A second set of important factors include agglomerative or cluster effects such as those described by Marshall and more recently in the idea of industry clusters (Gordon and McCann, 2000; Bergman et al., 1999). These include a wide range of localization economies, advantages in innovation and knowledge sharing from embedded networks, strong local demand for goods, and supportive local institutions. Research on places with large craft brewing sectors suggest that many have a history of beer-making that has resulted in supportive institutions (such as colleges with programs in brewing) and networks of people with knowledge of the industry (Cortright, 2002; Batzli, 2014). The demographic characteristics of residents of such regions also support the industry by creating reliable local demand and a market in which to test new products (Baginski and Bell, 2011; Reid and Gatrell, 2017). The presence of such advantages ought to be a draw for brewers looking to set up additional production facilities.

A third set of factors is the local tax and regulatory environment. States' and local governments' differing regulation of the production and sale of beer in response to local customs and preferences created a highly varied regulatory landscape for craft brewers. In some places, "blue laws" and dry counties strictly curtailed the manufacture, sale, and consumption of beer. In others, less restrictive regulation provided more oppor-

tunities for brewers to start and expand breweries. These latter places have, over time, emerged as leaders in the craft brewing industry (Cortright, 2002; Gohmann, 2016). Craft breweries are locating in these areas because of the current and historical legal infrastructure for brewing and the sale of beer (Adams, 2006; Wade et al., 1998). As more states across the US enacted more liberal alcohol laws, small craft breweries opened in those locations as well (Malone and Lusk, 2016). So, while the regulatory landscape is more homogenous now than in earlier periods, places with longer histories of favorable regulation are more likely to have the agglomeration effects mentioned above and thus be more attractive to expanding breweries. Once some local breweries began to look for opportunities to establish additional production facilities far from their place of origin, states and localities with less favorable regulations had additional reasons to alter laws (Tremblay et al., 2005).

Today, brewing has become yet another target that local economic developers try to lure with regulatory reform and tax incentives (Tremblay et al., 2005). Unlike with regulatory reform, most research suggests that tax incentives have only moderate impact on location decisions since the factor and transportation costs and agglomerative effects have a greater impact on firm success and thus location decisions (Buss, 2001; LeRoy, 2005). Despite this, political pressure from elected officials, competition for capital between states and municipalities, and entrenched behaviors have made the practice of offering location incentives in the form of tax reductions, subsidized land and labor training, and cash grants common (Buss, 2001; LeRoy, 2005). The popularity of the practice is also driven by the fact that there is little that local governments can do in the short term to impact the cost, quality and availability of inputs outside of basic infrastructure (Bartik, 2017; Lowe and Freyer, 2015). Most investments are long term commitments and cannot usually be changed significantly over the short period that a location decision is made. In criticizing the practice of offering incentives to specific businesses, Rolnick and Grunewald (2003) suggest that investment in early childhood education has a better benefit-to-cost ratio than many of the most common public subsidies to businesses changing locations since investments in education will benefit the local population whether or not a specific business locates in the area.

The fourth factor that affects firm location choices is the quality of life in an area. Firms are generally thought to be oriented toward considerations of costs, profits, and market share, but firms are also made up of people. If people's preferences about where they want to live are affected by quality of life, then such factors are likely to affect where firms locate as well. Empirical research has shown quality of life to be of less importance than other factors, but still an important consideration, especially for small and high-tech firms (Love and Crompton, 1999; Salvesen and Renski, 2003). Gottlieb (1994) outlined two mechanisms by which this might happen. One, places with better quality of life will attract labor in greater quantity, especially those with skills that are in high demand. Since labor is a critical input, its availability in a particular place will be affected by the quality of life there. Two, and more directly, places with a high quality of life are likely to be attractive to executives and others with direct control over location decisions. In considering a location, such individuals will consider not only the implications for their business, but also for themselves, their family, and their employees.

In this paper, we explore whether the quality of life factors influence location decisions in another way, through the role they can play reinforcing the company's brand image. Firms selling in monopolistic competition rely heavily on brand image, and any publicity has the potential to either reinforce or detract from that image (Pindyck and Rubinfeld, 2005). In monopolistic competition, the products are not perfect substitutes. Each producer carves out a space within the larger market where they can have a very small monopoly-like market. This allows the producer to compete based on its distinctiveness rather than on price. Clemons et al. (2006) found that breweries that received a wider variety of online reviews, indicating a wide range of opinions and a clear understanding of the difference in the products from other brewers' beers, had higher overall sales. Regional craft breweries do not have a perfect monopoly because while one producer may be the only one making an all-organic IPA with a mellow flavor profile, another IPA or even another style of beer could be substituted for it if the consumer does not appreciate the product differentiation. For many craft beers, some of the factors that make the beer distinctive are the place where it is brewed, the lifestyle associated with that place and the labor and environmental practices of the company—all qualities that could be related to quality of life.

All four sets of factors affect the location decisions in brewery expansions and this is evident in the several recent high-profile brewery expansions. Some breweries, such as Stone Brewing Co., have sought the spotlight

and most have willingly participated by issuing press releases, commenting on the location on company blogs and speaking to journalists. The public narrative of the expanding breweries about their choice of location has focused on factors of production and incentive packages but it has also addressed the other qualities of place as well. Jenn Vervier, director of strategic development and sustainability for New Belgium said of their choice to expand to Asheville, North Carolina, “The community met our criteria around being progressive. It’s collaborative with a vibrant downtown, and the city is involved with the public” (McCurry, 2012). Similarly, Steve Wagner, the president and co-founder of Stone Brewing Co. said of their expansion plans to Virginia, “We also feel that Richmond’s vibrant energy and impressive craft beer culture, along with the uniqueness of the property, will allow us to create a truly memorable Stone experience for our fans” (LoPiccolo, 2014). While many consumer products are in monopolistic competition, craft beer is unusual in that brand image is closely related to brewers’ production processes and the location of production. For many craft brewers their production facilities are also their flagship stores, announcing the distinctiveness of the brewery with tasting rooms, factory tours, and events. Craft breweries are an interesting case to use to expand our understanding of the role of quality of life factors in the decision process because they may be appealing to quality of life factors for reasons beyond attracting labor and appealing to management.

3 Methodology

In order to understand why craft brewers and economic development officials are discussing quality of life in the process of choosing an expansion location, we focus on the well-publicized expansion of Sierra Nevada. We quantify the reasons for choosing the Mills River, North Carolina location by analyzing press releases, blogs, and newspaper and magazine articles related to the expansion. We also interviewed a person involved in the location decision at Sierra Nevada and a local government official in North Carolina involved in attracting the company. These interviews were an opportunity to clarify priorities and provide context to the written records.

To analyze the news accounts, we began with press releases and other publicity such as company blogs issued by the breweries and the local government agencies that were involved in the move. To that, we added all accounts appearing in periodicals and blogs that were not a repetition of the press releases. We identified quotes and paraphrases that explained why the company chose the location they did or noted factors important in making that decision. Quotes were coded to identify the decision factors as well as the name and affiliation of the person making the statement. Usually it was easy to identify where the information in the article came from. However, occasionally we had to identify the source more broadly such as coming from the brewery or from local government sources. We used a total of 14 articles and 81 quotes in our analysis. The articles used are identified with an asterisk in the reference section. The coding was conducted independently by two members of the research team. Only three discrepancies were found and these were resolved through discussion.

The initial round of coding yielded 29 decision factors that we then grouped into the four sets of factors:

- traditional location factors (market size and distance, transportation, cost and availability of inputs),
- agglomerative and clustering factors (local skills and knowledge, vibrant related industries),
- tax and regulatory environment (tax rates, incentives, laws and regulations), and
- squality of life (natural and cultural amenities, recreation, general education).

For example, the quote below is from Don Schjeldahl, the site consultant that worked with Sierra Nevada on the move.

For example, the quote below is from Don Schjeldahl, the site consultant that worked with Sierra Nevada on the move.

The location is not urban, but it has a regional presence, he says. It has great access to I-26 and frontage on the French Broad River. Although Asheville water is available at the site, which

is part of a 262-acre (106-hectare) industrial park, the company elected to drill its own well (McCurry, 2012).

It was categorized as referring to characteristics of the site, transportation, environment and natural resources, and water. These are primarily traditional location factors (characteristics of the site, transportation, water the major input in beer), but the quote also refers to natural amenities the French Broad River is not a navigable river that could be used for transportation which falls into the quality of life factors.

We also coded the quotes to see if they discussed one or more aspect of the Sierra Nevada brand. This was to determine if the mention of quality of life factors 1) fit with existing theories that quality of life was important to executives concerned about moving with their family to a new location or 2) was discussed in terms of its relationship to the Sierra Nevada brand. Sierra Nevada has identified seven reasons why we brew” published on their website that are the core of its brand identity. These include:

1. Purest Ingredients: they value quality ingredients, especially fresh hops, raised responsibly and pure mountain water.
2. Traditional Techniques: they value labor intensive techniques and the character that traditional equipment imparts on beers
3. Invention: They value experimentation to create new flavors and find new ways to recreate old world flavors.
4. Innovation: They value collaboration to try out new techniques and flavors.
5. Attention to Detail: They value rigorous standards for flavor, quality ingredients, and bottling.
6. Commitment to the Environment: They value the conservation of the environment and practice environmentally responsible production techniques from solar energy to rail for delivery of inputs. They also value outdoor recreation.
7. Community: They value the people in the place where they are located and support a variety of community organizations (Sierra Nevada, 2015).

This coding allowed us to determine the degree that the rhetoric was about the company’s brand identity. By coding for both the four sets of location factors and brand identity we are able to identify whether the discussion of quality of life can be explained by brand identity instead of or in addition to attracting labor and appealing to management.

We interviewed two people who were involved in the site selection process. One was a representative of Sierra Nevada who participated in the internal discussions of the choice of the site as well as the conversations with site representatives. The other was a representative of local government in Mills River who was involved in the entire process and most of the discussions with the company, including discussions about potential public incentives and visits to the site. The interviews were conducted as we were categorizing the quotes and influenced how we identified and categorized decision factors. The interviews confirmed the relevance of the four sets of factors above, and also highlighted the connection between of quality of life factors and the Sierra Nevada brand.

4 Results

The written records of the site selection process revealed that all four of the main theoretical explanations were explicitly given by those involved with it. Our analysis revealed that quality of life factors were mentioned about as frequently as discussion of the traditional location factors (Table 1). The interviewees shed some light on the importance given to quality of life factors in the decision. They claimed that the quality of life for employees and for the community around the company was very important to Sierra Nevada, but also that like many craft breweriesthe company is very attached to the location where it was founded. Furthermore, this organizational fit was closely tied to the brand image of the product. When we coded the

Table 1: Number of times that quotes referred to each set of location factors and aspects of the Sierra Nevada brand. One quote can refer to multiple topics.

	All	Sierra Nevada	Local Government	Site Consultant	Local Residents	No Attribution
Factors of Production						
Classic Location	39	12	15	6	1	5
Agglomeration & Cluster	16	10	2	2	2	0
Tax & Regulatory	17	2	12	2	0	1
Quality of Life	45	16	16	6	0	7
Facets of Brand Identity						
Purest Ingredients	22	10	5	2	0	5
Traditional Techniques	8	4	3	0	0	1
Invention	7	4	2	0	0	1
Innovation	18	9	3	2	2	2
Attention to Detail	14	4	8	2	0	1
Commitment to the Environment	29	10	11	4	0	4
Community	30	14	9	2	0	5
Number of Quotes referring to Brand	63	23	23	7	2	8
Total Number of quotes	81	26	34	9	3	9

quotes for the seven aspects of the Sierra Nevada brand, we found that about three-quarters (63) of them referred to some aspect of the brand (Table 1). When we broke that number down by the four different location factors, we found references to brand common in all except for the tax and regulatory factors (Table 2). Nearly all of the quotes (96%) that referenced quality of life also discussed the brand (Table 2).

We further characterized those quotes that referenced quality of life to differentiate between those that referenced it as a location factor and those that did so in terms of the brand. We found that 20 percent of the factors referred only to the two classic quality of life factors motivating location decisions attracting skilled labor and appealing to executives (Table 3). However, 20 percent of them referred only to factors of the Sierra Nevada brand and about 40 percent of the factors could be classified as both. (Another 20 percent of the quality of life factors that did not fit into any of these categories. These were statements primarily about finding a place similar to Chico, their place of origin.) The fact that quality of life is discussed so often in conjunction with the brand indicates that there are additional reasons related to the brand that Sierra Nevada is talking about quality of life in the expansion location.

Quality of life factors were the most common factors cited in all of the quotes but traditional location factors were nearly as common. Water was the most frequently cited decision factors across all the quotes but especially those attributed to people in the Sierra Nevada organization. They also focused on other traditional location topics such as utilities, transportation and the distribution network. The overall quality of life in the Asheville area, the environment and the community as a whole all quality of life factors were also among the ten most frequent topics in the quotes. Agglomeration was discussed mostly in the context of a beer community” and was discussed more by Sierra Nevada than local government. Taxes and regulations were just the opposite with local government officials referring to it much more than Sierra Nevada.

We categorized the quotes based on the role the person played in the expansion process (Table 1). The three primary categories were: an employee or executive of Sierra Nevada, a local government official, either elected or appointed, and a site consultant. Not surprisingly, local government officials discussed the site and the utilities water, sewer, and transportation more than the other groups. Company officials cited the community and quality of life factors in discussing the Mills River location and the process of choosing a location. The site consultant also emphasized the utilities but discussed the environment more than any of the other factors. The emphasis of the local government officials and the site consultant on the physical attributes of the site was unsurprising but the degree to which Sierra Nevada emphasized characteristics of the community and quality of life was unexpected.

When we coded the quotes for references to the brand, we found that 63 of the 81 quotes referred to the brand in some way. This was highest for quotes attributed to Sierra Nevada representatives (Table 1) but all people involved in the move discussed publicly how the region fit with the Sierra Nevada brand and company image. The quotes that referenced quality of life factors also referenced aspects of the brand 93 percent of the time (Table 2).

This is not surprising since two of the seven core values are about the environment and community, two

Table 2: Number of quotes that reference both location factors and aspects of the Sierra Nevada brand in the same quote. One quote may refer to more than one location factor.

	Total Quotes	Quotes that Reference brand	Percent
Factors of Production			
Classic Location	39	28	72
Agglomeration & Cluster	16	16	100
Tax & Regulatory	17	8	47
Quality of Life	44	42	95

aspects of quality of life. We found that quality of life factors mentioned in the literature the ability to attract skilled labor and the desirability of a location for company executives were topics that were addressed in quotes but there were many quotes that discussed quality of life topics that were unrelated to these reasons. In addition, all of the quotes that referenced agglomeration or clustering aspects of location were discussed in the context of the brand. Innovation through collaboration is one of the core values of Sierra Nevada so it may be impossible to disentangle the brand from the benefits of a shared labor pool, educational support structures, and other hallmarks of agglomeration. Quotes referring to traditional location factors less frequently referred to the brand. The first of Sierra Nevada’s reasons “why we brew” addresses water, a primary input, but other traditional location factors do not have much overlap with the brand. Finally, quotes about taxes and regulations referred to the brand less than half the time. As these are not issues that are addressed in the seven reasons Sierra Nevada brews, it is not surprising that there would be less crossover.

Table 3: Percent of quotes that referred to quality of life in ways that have been documented (left) and in reference to the brand image (top). There were 44 quotes about quality of life in total.

	Quotes that refer to the quality of life reinforcing the brand image	Quotes that do not discuss QoL in these terms
Quotes that refer to the attractiveness of the destination to executives or the attractiveness to the potential labor pool	20.50%	38.60 %
Quotes that do not refer to these aspects of QoL	20.50%	20.50 %

We spoke with a person at Sierra Nevada who was involved in the decision-making for the new location and a member of the local government who was involved in the process. The Sierra Nevada representative reiterated the importance of the cultural fit of the community with Sierra Nevada’s company philosophy and values. She emphasized that Sierra Nevada had better offers of public incentives elsewhere and they were looking at sites that were better developed (the Mills River site needed utilities extended to it and it was not next to a rail spur), but chose to locate in Mills River because they liked the community and felt the site and region fit with their company image. The local government official also discussed how important the quality of life in the Asheville region was to Sierra Nevada. He had worked with other companies in other industries for which quality of life was important. He said in his experience it was not specific to a particular industry but part of the company philosophy and values.

5 Discussion

The highly publicized expansion of Sierra Nevada to Asheville demonstrates that the company is concerned about location factors but that they discuss these factors in the context of their brand image. Brand may be especially important for craft brewers because of the structure of monopolistic competition. Many of their

core values are closely tied to location factors so it is difficult to disentangle the discussion of the brand from location factors. When we looked at the quotes referring to quality of life, there were clear references to the desire of executives to live in the expansion location but there were also references specifically to the brand and aspects of the brand, such as its commitment to the outdoors and environmentalism, that are related to quality of life.

The brand is clearly a consideration for Sierra Nevada in the choice of the expansion location. Because the company is facing monopolistic competition, product differentiation is the key to a successful business. For Sierra Nevada, and many other craft brewers, part of what defines their product is their location and the way their company operates. Location factors are important to the company but the choice of location also depended on the fit with the community and degree to which the popular conception of the new location helped to set the company's product apart from other brewers. Sierra Nevada clearly outlines the attributes that set it apart from other brewers in the seven reasons "why we brew." Some of these are related to the four sets of location factors so it is difficult to disentangle the brand from the location factors. For example, the first one, purest ingredients, includes water. The company values high quality and consistent water because it has the potential to impact the flavor of the beer. However, they are also concerned with the water source because it is the primary ingredient in beer and they need an inexpensive, voluminous and consistent source. Representatives from Sierra Nevada discussed the availability of water for both reasons. Similarly, the company prides itself on innovation through collaboration with other brewers. This is facilitated by locating in an area with other brewers. Locating in an area with other brewers also means that there is an existing market for beer consumption and an existing labor force with brewing skills. Both of these characteristics of agglomeration were discussed in the location process.

Even though the brand is closely tied with quality of life, the quotes reveal that their reasons for discussing quality of life include those that have been established in the literature. Jaime Laughter, the Mills River town manager observed, "You had three generations of the family right there that were coming to see a wooded site, and see the possibilities of that brewery. It made an impression on me that they were family oriented to bring three generations on a site-visit hike. They really wanted to know were they going to fit in, live here and enjoy it" (Moss, 2014). This is clearly a reference to the desirability of the expansion site to the executives. The company also listed things like the quality of K-12 schools in its request for proposals indicating it was interested in quality of life for attracting and retaining labor (Urnsey, 2011). However, there are also quotes that describe quality of life topics outside of these dimensions. For example, Stan Cooper, who became the brewery manager at the Mills River location, described a boat ride on the French Broad River that the Sierra Nevada group took while scouting for a location. The boat captain spotted a garbage bag floating in the river and asked the passengers if they minded if he made a detour so he could clean it up. "Guy didn't have a clue who we were, and that was very impressive. He didn't put on a show it was legit. That just sort of set the tone for this whole region that people care" (Moss, 2014). Care for the environment is central to the company's values and identity and its commitment to reducing water usage and using renewable power sources are one of the things that makes Sierra Nevada's beer distinct from other brewers' beers. This rationale for choosing a location is also based on quality of life factors but separate from the appeal to executives and the attractiveness to skilled employees.

Regional craft brewers are different from many other manufacturers because many treat their manufacturing location as a flagship store. Therefore, the things that make the producer's beer distinct from other beers need to be evident at the manufacturing location as well as in retail environments. Consumers would rather connect with producers who are growing their food, cooking their food, making their beer, making their wine that personal connection with the brand, the people behind the brand, is more and more important," said Ken Grossman in an interview (Coffey, 2015). Other manufacturers in monopolistic competition may not be as concerned about their manufacturing facility fitting their brand image but for craft brewers, and specifically Sierra Nevada, part of the distinctiveness of the product is in the manufacturing process. Brewers invite consumers to learn about that distinctiveness at the manufacturing site.

6 Conclusion

Sierra Nevada, named for the mountain range close to its Chico headquarters, identifies with the community in Chico and the natural environment. The labels on the beers depict scenes from the region, one of their year-round beers is even called “Old Chico.” When expanding, they hoped to find a second Chico on the east coast. “We wanted something sort of like Chico, we wanted a big farm-to-table farmers market that people like to be at, outdoor-centric. Our drinkers are outdoors drinkers.” Brian Grossman, the manager of the Mills River establishment said in a news article (Moss, 2014). Not only is the location central to the identity of the company but so are specific business practices. Their Chico facility is outfitted with a solar array to generate energy for the manufacturing process. “To visit there, I saw that those people are not just talking about sustainability and environmental stewardship they’re living it,” said North Carolina State Representative Chuck McGrady said in a news article (Little, 2012). Much of the discussion about the quality of life in Mills River and other potential locations is not about the quality of life per se but about the character and values of Sierra Nevada and its brand. Ken Grossman, the CEO of Sierra Nevada said as much in a news article, “We were very close to making a decision on sites very near here but we felt the communities, even though they were great, didn’t really fit our brand and our company as well as this area did” (Glancy, 2012).

In the publicity of the Sierra Nevada expansion to the Asheville area, company representatives, local government officials, the site consultant and other discussed the quality of life about as frequently as they discussed traditional location factors such as transportation and the availability of inputs. Sierra Nevada was interested in issues related to quality of life in its expansion to the east coast not only because it appeals to executives and can attract and retain skilled labor but also because those issues are one of the things that set Sierra Nevada beer apart from other brewers’ beer. Quality of life attributes such as music, motorcycles, or freedom are important to the brands of other craft brewers and so quality of life may be a significant part of the discussion for relocation and expansion decisions of other craft brewers. For manufacturers in monopolistic competition where product differentiation is key to profitability, economic development professionals can expect that the location decisions and the rhetoric around those decisions will include discussion of the characteristics that set each company apart from others.

References

- Adams, W. J. (2006). Markets: Beer in Germany and the United States. *Journal of Economic Perspectives*, 20(1):189–205.
- Agnew, M. (2016). The thirsty business of beer: How breweries are confronting the industry’s water problem. *The Growler*, 02 March.
- Baginski, J. and Bell, T. L. (2011). Under-tapped? An analysis of craft brewing in the southern United States. *Southeastern Geographer*, 51(1):165–185.
- Bartik, T. J. (1985). Business location decisions in the United States: Estimates of the effects of unionization, taxes, and other characteristics of states. *Journal of Business & Economic Statistics*, 3(1):14–22.
- Bartik, T. J. (2017). *A New Panel Database on Business Incentives for Economic Development Offered by State and Local Governments in the United States*. W.E. Upjohn Institute for Employment Research, Kalamazoo, MI.
- Batzli, S. A. (2014). Mapping United States breweries 1612 to 2011. In *The Geography of Beer*, pages 31–43. Springer, New York, NY.
- Bergman, E. M., Feser, E. J., et al. (1999). *Industrial and Regional Clusters: Concepts and Comparative Applications*. Regional Research Institute, West Virginia University, Morgantown, WV.
- Brewers Association (2018). *Craft Beer Industry Market Segments*. Brewers Association, Boulder, CO.
- Buss, T. F. (2001). The effect of state tax incentives on economic growth and firm location decisions: An overview of the literature. *Economic Development Quarterly*, 15(1):90–105.
- Cabras, I. and Bamforth, C. (2016). From reviving tradition to fostering innovation and changing marketing: The evolution of micro-brewing in the UK and US, 1980–2012. *Business History*, 58(5):625–646.
- Carroll, G. R. and Swaminathan, A. (2000). Why the microbrewery movement? Organizational dynamics of resource partitioning in the US brewing industry. *American Journal of Sociology*, 106(3):715–762.

- Clemons, E. K., Gao, G. G., and Hitt, L. M. (2006). When online reviews meet hyperdifferentiation: A study of the craft beer industry. *Journal of Management Information Systems*, 23(2):149–171.
- *Coffey, B. (2015). Sierra Nevada founder Grossman becomes billionaire on pale ales. *Bloomberg Business*, 20 January.
- Connor, J. M. and Schiek, W. A. (1997). *Food Processing: An Industrial Powerhouse in Transition*. John Wiley and Sons, New York, NY.
- Cortright, J. (2002). The economic importance of being different: Regional variations in tastes, increasing returns, and the dynamics of development. *Economic Development Quarterly*, 16(1):3–16.
- Deller, S. C. T. and Tsvetkova, A. (2015). *Recruiting Manufacturing Firms from Across State Lines: A Waste of Time and Effort?* Presented at the 46th Annual Conference of the Mid-Continent Regional Science Association, St. Louis, MO.
- Dighe, R. S. (2016). A taste for temperance: How American beer got to be so bland. *Business History*, 58(5):752–784.
- *Frankel, J. (2011). Henderson County commissioners pass incentives for unnamed company rumored to be Sierra Nevada. *Mountain Xpress*, 12 December.
- *Glancy, G. (2012). Sierra Nevada to invest 107m in Henderson County, NC. *GOUstate.com*, 25 January.
- Gohmann, S. F. (2016). Why are there so few breweries in the south? *Entrepreneurship Theory and Practice*, 40(5):1071–1092.
- *Golden Leaf Foundation (2014). Henderson County manufacturer creates 89 new jobs: Golden Leaf public road infrastructure grant helped with site preparation. Golden LEAF Foundation North Carolina Newsletter. Rocky Mount, NC. Retrieved from <http://goldenleaf.org/newsletterfall2014.html>.
- Gordon, I. R. and McCann, P. (2000). Industrial clusters: complexes, agglomeration and/or social networks? *Urban Studies*, 37(3):513–532.
- Gottlieb, P. D. (1994). Amenities as an economic development tool: Is there enough evidence? *Economic Development Quarterly*, 8(3):270–285.
- Grossman, B. (2013). *On Our Way to North Carolina*. Sierra Nevada Brewing, Chico, CA.
- *Henderson County Partnership for Economic Development (2012). Sierra Nevada Brewing locates to Henderson County, NC. Retrieved from <http://gohendersoncountync.org/blog/2012/01/sierra-nevada-brewing-locates-to-henderson-county-nc/>.
- Hoover, E. M. (1948). *The Location of Economic Activity*. McGraw-Hill Book Company, New York, NY.
- Hotelling, H. (1929). Stability in competition. *Economic Journal*, 39(153):41–56.
- LeRoy, G. (2005). *The Great American Jobs Scam: Corporate Tax Dodging and the Myth of Job Creation*. Berrett-Koehler Publishers, Oakland, CA.
- *Little, D. (2012). How a small North Carolina town landed Sierra Nevada Brewing Co. *Chico Enterprise-Record*, 12 February.
- LoPiccolo, S. (2014). Stone Brewing Co. names Richmond, Virginia, as future home for new brewery and destination restaurant [press release]. *Ohio.com*, 9 October.
- Love, L. L. and Crompton, J. L. (1999). The role of quality of life in business (re) location decisions. *Journal of Business Research*, 44(3):211–222.
- Lowe, N. and Freyer, A. (2015). A moving target: Rethinking industrial recruitment in an era of growing economic uncertainty. *Environment and Planning C: Government and Policy*, 33(5):1284–1300.
- Malone, T. and Lusk, J. L. (2016). Brewing up entrepreneurship: Government intervention in beer. *Journal of Entrepreneurship and Public Policy*, 5(3):325–342.
- *Manley, B. (2015). Sierra Nevada sets March opening for Mills River Taproom and Restaurant [press release]. Retrieved from <http://www.sierranevada.com/>.
- Markusen, A. and Nesse, K. (2007). Institutional and political determinants of incentive competition. In *Reining in the Competition for Capital*, pages 1–42. WE Upjohn Institute for Employment Research, Kalamazoo, MI.
- McCullough, M., Berning, J., and Hanson, J. L. (2019). Learning by brewing: Homebrewing legalization and the brewing industry. *Contemporary Economic Policy*, 37(1):25–39.
- *McCurry, J. W. (2012). Hops city: Beer culture comes to a head in the Asheville region.
- *McGrady, C. (2012). Recruiting Sierra Nevada: The legislative role. *Chico Enterprise-Record*, 12 February.
- Moore, M. S., Reid, N., and McLaughlin, R. B. (2016). The locational determinants of micro-breweries and brewpubs in the United States. In *Brewing, Beer and Pubs*, pages 182–204. Springer, New York, NY.

- Moriarty, B. (1980). *Industrial Location and Community Development*. University of North Carolina Press, Chapel Hill, NC.
- Moses, L. N. (1958). Location and the theory of production. *Quarterly Journal of Economics*, 72(2):259–272.
- *Moss, B. (2014). Big forest: The courtship of Sierra Nevada. *Hendersonville Lightning*, 7 April.
- Pindyck, R. S. and Rubinfeld, D. L. (2005). *Microeconomics*. Pearson, New York, NY.
- Reid, N. and Gatrell, J. D. (2017). Craft breweries and economic development: Local geographies of beer. *Polymath: An Interdisciplinary Arts and Sciences Journal*, 7(2):90–110.
- Rolnick, A. J. and Grunewald, R. (2003). Early childhood development: Economic development with a high public return. *Fedgazette*, March:6–12.
- Salvesen, D. and Renski, H. (2003). *The Importance of Quality of Life in the Locations of New Economy Firms*. Center for Urban and Regional Studies, University of North Carolina, Chapel Hill, NC.
- Sierra Nevada (2015). Why we brew. Retrieved October 19, 2015, from <http://www.sierranevada.com/brewery/about-us/why-we-brew>.
- Stephen, P. (2015). State of beer changed 10 years ago with one NC law. *The Wilmington, NC Star News*, 12 August.
- *Tremblay, V. J., Iwasaki, N., and Tremblay, C. H. (2005). The dynamics of industry concentration for US micro and macro brewers. *Review of Industrial Organization*, 26(3):307–324.
- Urnsey, L. (2011). Sierra Nevada's Grossman site hunting in North Carolina. Retrieved from <http://www.lexisnexis.com/>.
- *Urseny, L. (2012). Toast of the town: Sierra Nevada Brewing Co. chooses western North Carolina for eastern plant. Retrieved from <http://www.lexisnexis.com/>.
- *Urseny, L. (2014). Sierra Nevada duplicates "Chico DNA" for Mills River plant. *Chico Enterprise-Record*. Retrieved from <http://www.lexisnexis.com/>.
- Wade, J. B., Swaminathan, A., and Saxon, M. S. (1998). Normative and resource flow consequences of local regulations in the American brewing industry, 1845-1918. *Administrative Science Quarterly*, 43(4):905–935.
- Weber, A. (1929). *Theory of the Location of Industries*. University of Chicago Press, Chicago, IL.
- Willcox, K. (2017). Craft brewers explained to us why water is actually beer's most important ingredient. *Vinepair*, 3 May.

Note: References marked with an asterisk indicate sources used in the text analysis.