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Examining the Craft Brew Industry: Identifying Research Needs

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Abstract
This article identifies gaps in current research and subsequent opportunities for further exploration into the various areas surrounding the craft brew industry. We begin with an overview of the craft brew industry and economic impacts as a result of the growing market. Next, a review of current research describing craft beer tourism activities is presented, followed by a few research articles describing sensory analysis activities. Lastly, based on the examination of the state of the industry and the extant literature, the authors suggest a number of areas for future research that would be of benefit for both craft brewers and hospitality/tourism professionals and educators.

Keywords
Craft Brew, Brewpubs, Beer Trails, Craft Beer Tourism

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Introduction

The Craft beer industry is experiencing a renaissance of sorts driven by small, independent brewers. While overall, growth in the beer industry was flat with about a 0.2% increase in sales for 2016, craft breweries experienced a 10% sales increase which represents just over 12% of the overall beer market (Watson, 2017). By December of 2016, there were 5,234 craft breweries (regional, micro, and brewpubs), representing a $23.5 billion industry. The craft beer industry is characterized into four main segments: microbrewery, brewpubs, regional, and contract craft breweries. According to the Brewers Association, a microbrewery produces less than 15,000 barrels a year and sells 75% of their production offsite, whereas brewpubs sell 25% or more of their beer onsite with emphasis on quality food production. Regional craft breweries produce 15,000- 6,000,000 barrels and may emphasize traditional as well as artisan beers. A contract brewery hires another brewer to produce its craft beer and takes ownership of the marketing and sales of the craft product (Watson , 2017b). A large brewery, of which there are relatively few compared to craft brewing (less than 1%), produces over 6,000,000 barrels a year.

The craft beer industry is experiencing a historic period of growth and is a movement on both local and national levels. Fine dining restaurants are stocking rare beers alongside wine in their cellars and offering draught and bottle lists. Craft beer is entering the mainstream of the culinary world. For example, Epcot, Disney's adult-centered theme park, has an exhibit devoted exclusively to craft beer. The exhibit includes a visual display of the fermentation process, as well as sampling flights for those interested in tasting the local brews. This marketing opportunity is multifaceted, in that it meets the insatiable interest of consumers for craft brewing as well as demand for tasting local beers. In addition, it generates significant revenue that remains within the state of Florida. Lastly, it promotes the local brews on an international scale, increasing demand for American craft beer exports.

The purpose of this article is to identify gaps in current research and therefore opportunities for further exploration into the various areas surrounding the craft beer industry. We begin with an overview of the craft brew industry and subsequent economic impacts as a result of the growing market. Next, a review of current research describing craft beer tourism activities is presented, followed by a few research articles describing sensory analysis activities. Lastly, based on the examination of the state of the industry and the extant literature, the authors suggest a number of areas for future research that would be of benefit for both craft brewers and hospitality/tourism professionals and educators. Articles for review were selected based on a search of the extant literature in hospitality and business journals using the Business Source Complete and Hospitality & Tourism Index search engines and using key terms “craft beer industry,” “craft brewing,” “beverage tourism,” “craft beer tourism,” “culinary tourism,” and others (see Appendix A).

Craft Beer Industry Overview

The craft brew industry is sustaining healthy growth and has been doing so since the early 1980’s (Kleban & Nickerson, 2012; Reid, McGlaughlin & Moore, 2014; Reid & Gatrell, 2015). Barrows and Fransen (2002) describe it as a niche market. Several authors offer theories as to why the craft brew industry is gaining such momentum while the beer industry in general has stagnated (Kleban & Nickerson, 2012; Murray & O’Neill, 2012; Davis, 2015). Carroll and Swaminathan (2000) proposed and tested the most plausible theory to date, Resource Partitioning. Resource Partitioning Theory (RPT) states that, while larger companies or generalists compete with each other for dominance by consolidating and homogenizing their product(s), specialty producers with innovative products emerge, gaining space in the larger market. RPT can be applied to a broad array of industries, including breweries.

Craft beer has been considered a market segment that parallels the rise of independent and market specific industries such as Fair Trade coffee, artisan cheese, and heirloom seed sales (Murray &

O'Neill, 2012). It is argued that this differentiation is imperative for new businesses to enter existing markets, as consumers are increasingly looking for specialty types of products. In the case of craft beer, consumers are looking for local beer, in addition to specialty types. Besides being locally produced, local beers are offering unique flavors, ingredients and production not available at the national distribution level. Legalization of home brewing in 1979 may have provided a burst of interest and subsequently talented brewers, many of which moved into professional brewing careers in the craft segment. However, researchers found that the craft brew movement, once driven by the home brewing movement has continued to grow at the expense of the larger beer industry (Murray & O"Neil, 2012).

Although craft brewing is popular in most regions of the US, it has been noted as being more difficult to establish in the southern states (Baginski & Bell, 2011; Gohmann, 2016). Most southern states have fewer breweries per capita than the rest of the country. This is not to say there is a lack of consumer interest for craft beer, but rather operational challenges precluding breweries from opening. Using a logistic regression model to analyze data from 49 states over 9 years (Alaska was excluded), Gohmann (2016) identified a number of significant variables that influenced craft brewery growth in the South, to include: higher political campaign contributions from big breweries, the number of beer distributors per capita, and the Southern Baptist restriction of alcohol consumption. Politics, distribution, and religious values represent control variables that have the potential to limit access and consumption of craft beer or alcohol in a specific region. Baginski and Bell (2011) identified similar results and noted the large number of "dry" counties where beer cannot be sold in the South. Breweries find it easier to start up in states with more distributors in metropolitan areas allowing more competition rather than monopolies.

Anheuser-Busch InBev (a Belgian-based company) and SABMiller (based in the United Kingdom) completed a merger in October of 2016, creating the largest beer conglomerate in the world valued at over $104 billion. This newly-formed company will control almost one third of global beer production, with annual sales of $55 billion (Associated Press, 2016). How this consolidation of the brewing industry will affect production and more importantly distribution among craft brewers is not yet known.

Economic and the Craft Beer Industry

In 2016 Americans spent $107.6 billion on beer, with $23.5 billion comprising craft beer specifically (Watson, 2017). One aspect of why the craft beer segment continues to show explosive growth while overall beer sales remain sluggish is the relative ease in establishing the required equipment and infrastructure. Growth of small craft breweries over the past half-decade has been epitomized by brewer/owners establishing new breweries with innovative and creative means, often by building in-house smaller, 1-3 barrel brewing systems. This significantly minimized the required startup capital, which was critical during the Great Recession when business loans were difficult to obtain and investors tended to be less enthusiastic. Equipment manufacturers followed suit by producing equipment and turn-key systems that were small and less expensive than the 7 and 15 barrel brew houses that defined microbreweries in earlier decades. This change is evidenced by the large number of new breweries with production quantities of less than 500 barrels per year and the fact that average annual production for microbreweries has decreased from 5,000 barrels in 2000 to less than 700 in 2015 (Watson, 2017c).

The acceptance and proliferation of craft beer has led to growth opportunities for successful breweries. Consequently, large national and international breweries are acquiring smaller and regional craft breweries to broaden their market share and return on investment (ROI). Regional breweries offer large scale economic opportunities to local and state economies. Many of these regional breweries appear to be located in the Pacific northwest, California, the northeast, the great lake area, and the mountain west (Reid & Gatrell, 2015).

On a per capita basis, Colorado, Oregon, Washington, California, Michigan and Wisconsin stand out with the highest numbers of craft breweries (Reid, McGlaughlin & Moors, 2014). A few studies have indicated sites for successful craft breweries, suggesting metropolitan areas with higher numbers of millennials (between the ages of 25-44) and diverse populations are prime for the burgeoning craft beer market. (Reid, McGlaughlin & Moors, 2014; Reid & Gatrell, 2015).

Sorenson, Morgan and Furniss (2012) documented the growth and economic impact of microbreweries in Montana between 2010 and 2011. Even though microbreweries represented only a portion of the larger craft brewing industry, Montana saw an increase in beer sales ($26 million in 2011), more employment in the brewery sector (39% increase), higher compensation (23% increase), increased expenditures (21% increase), and increased total barrels produced (18% change). The researchers suggested that the economic impact of the craft beer industry should be measured on a continuum.

Craft Beer Tourism

Kraftchick, Byrd, Canziani and Gladwell (2014) identified the motivational factors of craft brewery tourists in North Carolina, to be: the craft brewery experience, socialization, enjoyment, and the beer itself. Items within the craft brewery experience included: to taste North Carolina beer, to taste new beer, and to increase beer knowledge. For the beer focused tourists, the craft beer experience was the significant factor differentiating them with other tourists in the study. Their research identified the craft beer tourist as 61% male, average age 38, over 70% with a bachelor’s degree, and interesting to note, only half were married. They found that over 38% of those visiting a local brewery in North Carolina were not from the area, indicating that brewery tourism is a valid way to market new and existing breweries and brewpubs, as well as to generate economic impacts to local economies. Murray and Kline (2015) also examined the craft brewery experience in North Carolina and the impact on rural tourism. The researchers argued that this type of tourism helps to stimulate local economies by supporting breweries, local inns, restaurants, farmers, and ranchers without hurting the “cultural fabric” of the area. Craft brewery tourists were seeking satisfaction with the craft beer product, a desire to connect with the community, and unique products. Also noted in Murray and Kline’s study, repeat business correlated with locality, and those most concerned with helping the community were the ones who repeatedly frequented the local brewpubs, supporting the importance of "sense of place ."

Hede and Watne (2013) investigated the idea that a "Sense of Place" (SoP) was an important element for the popularity in craft beer. Millennials have the reputation for rejecting global brands in favor of smaller, more local establishments. Subsequently, this demand for local products and affinity towards craft beer has helped to increase the demand. Hede and Watne (2013) feel the SoP should be considered as a branding strategy for craft breweries because it humanizes the product for the consumer. Other research has demonstrated that craft breweries can be influential in creating a SoP which is an attraction for tourists (Fletchall, 2016). Apart from the flavor of the beer itself, the local nature of craft breweries and tourists' desire for authenticity have proven to be a genuine attraction. There is a notion that the local food movement is helping to drive the craft beer phenomenon.

Slocum (2016) views craft beer tourism as a form of sustainable tourism in the emerging "beer trail" markets. Craft breweries in Loudon Virginia (near Washington D.C.) were the focus of this article and described as "on-farm breweries." On-farm breweries offer unique beers, made from ingredients sourced from the farm or near the farm the beer was produced. This makes the beers unique as it cannot be made or consumed anywhere else. Although Slocum (2016) advocated collaborations between hospitality sectors, such as accommodations and tour bus operations, findings from her study suggest otherwise. Tour bus operators and accommodations were found to serve different markets, whereas the accommodation sector was willing to support the craft beer trail, tour operators were not.

Craft beer has gone from a relatively novel product to a specialty product widely available at restaurants and brewpubs over the past 40 years. Murray and O'Neil (2012) collected data from 4,200 members of the American Home Brewer's Association and the Brewers Association to provide a profile of the craft brewing enthusiast. The average craft brew enthusiast was described as between the ages of 35-49, earning a Bachelor's degree, and household income over $75,000. These craft brew consumers desire extensive beer lists when selecting a food and beverage operation, they prefer events that offer craft beer speakers and competitions, as well as demonstrations. They plan trips and vacations around the activity of craft beer.

Craft Beer Sensory Analysis

Although, wine and food pairings by chefs and sommeliers are commonplace in many restaurants and the advice is well documented in literature, less research is available understanding the nuances of beer and food pairings. “Harmony” and “complexity” are terms often used to describe the effects of food and beverage pairings, while more often the food has been shown to have an impact on the wine rather than wine on food (Paulsen, Rognsa, & Hersleth, 2015). Cicerone is the formal term for an expert in the pairing of food and beer (Daniel, 2017). Harrington, Miszczak, and Ottenbacher (2008) investigated the quintessential pizza and beer pairing debate using lager, ale and stout varieties with spicy and non-spicy pizza. Results indicated for the non-spicy pizza, a pre-disposed beer preference dominated the selection, while with the spicy pizza, beer style (full -flavor and fuller-body) predicated the choice. Paulsen, et al., (2015) conducted a sensory analysis study using craft beer and soup pairings (same mouth feel and experience, different flavors). Results indicated that high levels of complexity were correlated with high levels of harmony. In addition, the researchers used a “Just About Balanced” (JAB) scale to measure a dominance factor from the beer and soup pairings. Results indicated a high correlation with JAB scale and liking. Paulsen, et al., (2015) recommended future studies to be conducted using personal consumption characteristics and the JAB scale.

Very little data has been published concerning consumer sensory analysis of craft beer. With craft beer on the rise, Aquilani, Laureti, Poponi, and Secondi (2015) aimed to compare the “purely” commercial beer drinker to individuals who consume craft beer. Factors that caused commercial beer drinkers to try craft beer include flavor (malted barley, chestnut, honey-flavored), aroma, perceived quality, preference for draft beer, and drinking frequently or by oneself. The authors observed that perceptions of commercial beer changed after individuals tried craft beer. Overall, they found that age, beer attributes (aroma, perceived quality), and drinking habits had an impact on whether an individual was likely to try craft beer.

An interesting study was conducted to analyze the influence of soundscapes on taste perceptions (Carvalho, Wang, Van Ed, & Spence, 2016). The researchers used 3 Belgian ales with different alcohol content made by the same company. The soundtracks were described as Sweet, Bitter or Sour. Participants drank one beer, three times with a different soundtrack and rated it on music liking, alcohol strength, and taste rating, a control group was used in the study, as well. Results indicated different soundscapes did, in fact, affect the participants' taste and preference for the beer in terms of taste and potency. This may indicate that music, sound, or background noise at breweries may alter the patrons sensory experience and perception of beer. For future research, the authors suggested repeating the experiment with other multisensory cues in order to further tease apart the different effects on taste and consumption of beer.

Research Needs

There are two areas where craft brewing requires further investigation; those identified explicitly by researchers and those areas where gaps in the literature exist, but have not been identified. In the former category, Baginski and Bell (2011) suggested a need exists to research the availability or presence of brewing supply stores in various local markets as most craft brewers begin as home brewers. As breweries grow their supply chain dynamics change; it will be instructive to investigate how that happens.

Murray and O'Neill (2012) suggested examining the links between craft beer and luxury, gourmet, and experiential tourism. They proposed a broad-based survey of the general public to test for craft beer enthusiasm as a restaurant selection determinant; such a study would greatly enhance understanding of the potential for maintaining the growth the industry has experienced. They also suggested that examining the allure of craft beer on an international basis would be informative. Dunn and Wickman (2016) suggested an in-depth examination of craft brewery heritage and history as a way for projecting future growth patterns. Alternately, Carvalho, Wang, Van Ed, and Spence (2016) suggested investigating sensory cues to understand how atmospherics may affect the taste and consumption of beer in a brewery setting.

Craft Beer Industry

Gaps in the literature are many and varied. While the nature of the beer trade has become more complex, the nature of analysis remains rooted in the twentieth century. While the beer industry is certainly aware of the phenomenon, few, if any, restaurant organizations consider craft beer as something apart from mass market beers. Particularly, the National Restaurant Association does not differentiate between craft and mass market beer sales. This suggests that restaurant operators are, at best, slow to react to changing consumer demand or, at worst, simply unaware of the changing demand for beer products. Roughly one quarter of the American population is between the ages of twenty and thirty-five; a failure to recognize their changing purchase habits will have ramification for restaurants that could extend decades. Restaurant operators need to re-examine their individual customer bases to determine whether, first, their beer menu offerings need to be altered and, second, what they may be able to do to attract new customers.

A significant number of studies have been conducted examining wine market segmentation; the "wine-related lifestyle" has been part of the literature for nearly twenty years (Bruwer, Li, and Reid 2002; Johnson and Bruwer, 2007). Producers and, in particular, restaurateurs understand there are differences in the buying public that are defined by the wines they purchase, based on price, varietal, region of origin, and other factors. Wine consumers are far more savvy about wine purchases than they were only a few decades ago. The same thing is now happening to American beer consumers, and the population of savvy beer consumers is going to continue to grow both in absolute numbers and as a percentage of the total population. Yet little research has been done to understand this new demographic, their beer purchasing habits, and how restaurant operators should respond. Much more attention needs to be devoted to the segmenting of the beer market that is occurring in the same way the wine market has been segmented. In addition, it would be of great value to craft brewers and service establishments to understand how social media affects consumer purchase behaviors. It would be quite helpful to know what sources of information consumers seek out when looking for new and interesting beers.

Economic Impact of Craft Beer

As the nature of the craft brewing industry changes, and as more and more home brewers see home brewing as a way to gain entry into the for-profit craft brewing industry, a new examination of the nature of home brewers – expanding upon Murray and O'Neill's work – is necessary. In particular, it would be helpful to define the differences between the casual home brewer and someone intent upon making brewing a career.

While it is known that a significant portion of craft brewers get their start as home brewers, less is known about how many home brewers attempt to make the leap to commercial craft brewer and what are their success and failure rates. Therefore, research into those success/failure rates is warranted as well as an examination of the critical success factors in microbrewery development. The quantifying of economic risk involves not only knowledge of the amount of money placed at risk, but the likelihood of success and the expected return on investment. As it stands, prospective entrants into the craft brewing marketplace cannot be certain of the risks they are running, nor are there any studies providing them with a blueprint of documented success factors.

More studies should be conducted regarding the economic impact of craft breweries on their local communities. Economic impact research would give a clearer picture of the associated benefits to be derived from the growth of the craft brewing industry. There has been a substantial amount of research documenting the rise of microbreweries that look at a host of regional factors, but none attempts to identify commonalities among successful microbreweries that transcend region.

Further, while Gohman (2016) showed a link between increased campaign contributions in Southern U.S. states and fewer craft breweries relative to other states, the exact nature of these contributions is undetermined. It would be very informative to investigate whether the beer industry itself is working to restrict competition, and therefore artificially depress, the economic impact craft brewing could be making.

Craft Beer Tourism

In another parallel with the wine industry, wine tourism has exploded as a phenomenon over the past few decades. In fact, entire academic journals have been devoted to the phenomenon. While the beer tourism market will likely never approach the size and scope of wine tourism, it is a significant market and is growing larger. Still, very few studies have been devoted to exploring the subject, and the few that have are devoted to particular markets. Much more research needs to be conducted on craft beer tourism, especially research that ties together the factors that draw people to particular markets into a model that describes the larger phenomenon. More research also needs to be done regarding craft beer tourism as subset of food and agritourism.

As the beer market consolidates, large international brewers are devoting resources to buying local craft breweries. Research is needed in determining how craft breweries change after having been acquired by large conglomerates.

Sensory Analysis and Beer-Food Pairings

There is little research examining how craft beer, like wine, has come to be seen as a complement to food and not a stand-alone beverage. It would be very helpful for operators to know which sorts of beers pair best with which sorts of cuisine both from a culinary and commercial standpoint. There is an organized effort working toward this with the Brewers Association, the Master

Brewers Association of America, and the Cicerone organization. To that end, sensory studies evaluating consumer preferences when pairing craft beers with various foods would be informative. Operators would also benefit from research examining what differences exist between consumers of craft beers as opposed to consumers of mass market beers.

Further, as beer offerings become more varied, beer service standards need to expand and improve as well. An examination of increased physical requirements for operators (like keg rooms and increased tap capacity) as well as increased training standards for servers is warranted. As craft beer sales replace wine it will also be of importance to operators to better understand profitability structures of beer versus wine.

In conclusion, the craft beer industry is a growing segment of the beverage industry which, because its audience is typically younger, will only increase with time as population demographics change. As an industry it bears much greater exploration. There is a wealth of opportunity for practitioners and researchers alike.

Reference List

Aquilani, B., Laureti, T., Poponi, S., & Secondi, L. (2015). Beer choice and consumption determinants when craft beers are tasted: An exploratory study of consumer preferences. *Food Quality and Preference, 41*, 214-224. doi:10.1016/j.foodqual.2014.12.005

Associated Press (2016). *A-B InBev finalizes $100 billion acquisition of SABMiller, creating world's largest beer company.* Retrieved January 6, 2017 from http://www.chicagotribune.com/business/ct-megabrew-ab-inbev-sabmiller-merger-20161010-story.html.

Baginski, J., & Bell, T. L. (2011). Under-tapped?: An analysis of craft brewing in the Southern United States. *Southeastern Geographer, 51*(1), 165-185. doi:10.1353/sgo.2011.0002

Barrows, C., & Fransen, C. (2002). Brewpubs: The marketing of a growth segment. *Journal of Foodservice Business Research*, *5*(1), 61-78.

Bruwer, J., Li, E., & Reid, M. (2002). Segmentation of the Australian wine market using a wine-related lifestyle approach. *Journal of Wine Research,* 13(3), 217-242.

Carvalho, R. F., Wang, Q., Van Ee, R., & Spence, C. (2016). The influence of soundscapes on the perception and evaluation of beers. *Food Quality and Preference,* 5232-41. doi:10.1016/j.foodqual.2016.03.009

Carroll, G.R., & Swaminathan, A. (2000). Why the Microbrewery Movement? Organizational Dynamics of Resource Partitioning in the U.S. Brewing Industry. *American Journal of Sociology,* 106(3), 715–62.

Daniel, R. (2017). What is a Cicerone? Retrieved from https://www.cicerone.org/us-en/what-is-a-cicerone.

Davis, J. (2015). Will the beer bubble burst? *RMA Journal*, *98*(4), 42-45.

Dunn, A., & Wickham, M. (2016). Craft brewery tourism best-practices: a research agenda. *Annals Of Tourism Research*, *56,* 140-142.

Fletchall, A. (2016). Place-making through beer drinking: A case studies of Montana's craft breweries. *Geographical Review* 106(4), 539–566.

Gohmann, S. F. (2016). Why are there so few breweries in the South? *Entrepreneurship: Theory & Practice*, *40*(5), 1071-1092. doi:10.1111/etap.12162

Harrington, R.J., Miszczak, D.C., & Ottenbacher, M. (2008). "The impact of beer type, pizza spiciness and gender on match perceptions", PASOS*: Journal of Tourism and Cultural Heritage, Special issue: Gastronomic and Wine Tourism*, 6 (2), 173-188.

Hede, A., & Watne, T. (2013). Leveraging the human side of the brand using a sense of place: Case studies of craft breweries. *Journal of Marketing Management*, *29*(1-2), 207-224. doi:10.1080/0267257X.2012.762422

Johnson, R., & Bruwer, J. (2007). The balancing act between regionality and American viticultural areas (AVAs). *Journal of Wine Research*, 18(3), 163-172.

Kleban, J., & Nickerson, I. (2012). To brew, or not to brew – That is the question: An analysis of competitive forces in the craft bew industry. *Journal of The International Academy For Case Studies*, *18*(3), 59-81.

Kraftchick, J. F., Byrd, E. T., Canziani, B., & Gladwell, N. J. (2014). Understanding beer tourist motivation. *Tourism Management Perspectives*, *12,* 41-47. doi:10.1016/j.tmp.2014.07.001

Murray, A., & Kline, C. (2015). Rural tourism and the craft beer experience: Factors influencing brand loyalty in rural North Carolina, USA. *Journal Of Sustainable Tourism*, *23*(8/9), 1198-1216.

Murray, D. W. & O'Neill, M.A. (2012). Craft beer: Penetrating a niche market." *British Food Journal, 114*, 899–909.

Paulsen, M. T., Rognså, G. H., & Hersleth, M. (2015). Consumer perception of food–beverage pairings: The influence of unity in variety and balance. *International Journal Of Gastronomy And Food Science*, *2,* 83-92. doi:10.1016/j.ijgfs.2014.12.003

Reid, N., McLaughlin, R. B., & Moore, M. S. (2014). From yellow fizz to big biz: American craft beer comes of age. *American Geographical Society's Focus On Geography*, *57*(3), 114-125.

Reid, N., & Gatrell, J. D. (2015). Brewing growth. *Economic Development Journal*, *14*(4), 5.

Slocum, S. L. (2016). Understanding tourism support for a craft beer trail: the case of Loudoun County, Virginia. *Tourism Planning And Development*, *13*(3), 292-309. doi:10.1080/21568316.2015.1104381

Sorenson, C. B., Morgan, T. A., & Furniss, S. (2012). The economic impact of craft brewing in Montana. *Montana Business Quarterly*, *50*(4), 2.

Watson, B. (2017). Statistics: Economic impact. Retrieved from https://www.brewersassociation.org//statistics/national-beer-sales-production-data/.

Watson, B. (2017b). Craft beer industry segments. Retrieved from https://www.brewersassociation.org/statistics/market-segments/.

Watson, B. (2017c). Brewery onsite sales: Building craft brands. Retrieved from https://www.brewersassociation.org/insights/brewery-onsite-sales-building-craft-brands/.

Appendix A

Table A1: Significant Recent Craft Brew Research

Authors (date)	Theory/Methodology	Conclusions
Carroll and Swaminathan (2000)	Resource Partitioning Theory	Increasing market concentration will actually create opportunities for smaller producers
Kleban and Nickerson (2012)	Case Study	None drawn; paper limited to survey of (then) current state of industry
Murray and O'Neill (2011)	Survey of Home Brewers	Home brew movement is a significant driver of growth in craft beer industry
Gohmann (2016)	Regression	Limited number of distributors, their targeted campaign contributions, and local religious/social strictures serve to limit growth of craft beer industry
Reid and Gatrell (2015)	Survey	Growth in craft beer industry driven by millennials and demand for greater variety of style and flavors
Sorenson, Morgan, and Furniss (2012)	Survey	Craft breweries are significant drivers of local economic activity across sectors, especially manufacturing and retail trades
Kraftchick, Byrd, Canziani, and Gladwell (2014)	Push and Pull Theory	Defined four factors motivating craft beer tourists: experience, enjoyment, socialization, and beer consumption
Murray and Kline (2015)	Factor Analysis	Identified "connection with community," "desire for unique consumer products," and "satisfaction" as drivers of craft beer tourism
Slocum (2016)	Comparative Analysis	Accommodation properties significantly greater contributor to craft beer tourism than tour bus companies
Hede and Watne (2013)	Brand Humanisation Theory	A sense of place offers a novel, and different, approach to humanisation strategies based on anthropomorphisation, personification, and user imagery
Paulsen, Rognsa, and Hersleth (2015)	Sensory Survey	Proper pairing of food and beer will increase guest satisfaction with both beer and food
Aquilani, Laureti, Poponi, and Secondi (2015)	Survey	Age, beer attributes (aroma, perceived quality), and drinking habits influence individual likelihood to try craft beer