

**Craft beer, consumers, and brewers: Exploring preferences and attitudes for craft beer
and food**

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Abstract

The craft beer industry is experiencing continued revenue growth as the larger, mature beer industry's is slowing down (Lombardo 2019). The Tampa Bay area, Florida has numerous craft breweries and taprooms, and as a metropolitan area, it and surrounding suburban areas are attractive locations for future businesses. The purpose of this study was to explore current consumer preferences, expectations, and behaviors in the Tampa Bay area for craft beer and food. This two-part study consists of a survey of local beer consumers and a thematic analysis of the author's interviews with local craft head brewers. The exploratory work expects to find potential impacts food pairings could have on customers' experiences, and more broadly the trends in consumer behavior, and factors important to their decision to choose craft over traditional beer. Implications of this paper's findings have relevance to local brewing companies, as well as food and beverage operators regarding practical decision making in menu selection, beers lists, and server training.

Introduction

The craft beer industry has taken off since its humble beginnings as a home brewing hobby, and now faces new challenges growing its market share and reaching new consumers. Craft brewing began as a home hobby for enthusiasts, but since its legalization in 1979, it has grown into a \$27.6 billion industry in the U.S. (Watson, 2018). In recent years, the industry's growth has slowed to single digits as the market approaches maturation and some home brewers fail in the transition from hobby to business. Additionally, commercial beer competitors have made strategic acquisitions in recent years in order to reach the craft market themselves. In 2016, Anheuser-Busch InBev acquired SABMiller, creating the largest brewing company in the world, together, valued with over \$55 billion in total annual sales (Associated Press, 2016). They will have a dozen craft brands, some in part from their partnership with the Craft Brew Alliance (Kell, 2019). Independent breweries need to do more than ever before to stay relevant to consumers and to maintain growth.

According to the Brewers Association, a trade association of over 7,200 craft beer owners, brewers, and other related retailers, there are six market segments of craft beer; microbreweries, brewpubs, taproom breweries, regional breweries, contract brewing companies, and alternating proprietors (Craft beer industry market segments). Microbreweries produce less than 15,000 barrels of beer per year, with 75% or more of its beer sold off-site, while regional breweries produce between 15,000 and 6,000,000 barrels per year. Brewpubs and taproom breweries both sell at least 25% or more of their beer on premises, but the former must have a significant food service on-site. Contract brewing companies are ones which use a third-party brewery to produce its beer or to produce additional beer. Whereas, an alternating proprietor is a licensed tenant that shares and alternates the use of a brewery.

Research Purpose

The purpose of this study was to explore current consumer preferences, expectations, and behavior in the Tampa Bay area for craft beer and food, through quantitative and qualitative methods: surveys of consumers and interviews of craft brewing professionals. The author's two primary research questions were:

- What kind of consumption behaviors do we observe with beer and food in craft beer consumers?
- What is the point of view of craft brewing professionals on general trends in the industry and the nature of craft beer businesses?

The author focused the study's scope to the Tampa Bay metropolitan area, defined as including the Hillsborough, Pinellas, Pasco, and Hernando counties in Florida.

Quantitative Section

The author developed a survey for consumers who had tried craft beer and were either locals or had at least been to the Tampa Bay area. The survey questions were developed to better understand craft beer consumers with respect to consumption habits like frequency, preferred social environments, paired beer and food taste preferences, the degree of craft loyalty, and other factors craft consumers could potentially find important to their experience at craft breweries.

Qualitative Section

For the qualitative study, the author conducted semi-structured interviews (Smith, 1995) with two brewing professionals from the Hillsborough and Pinellas counties. Brewing professionals from these two counties were selected because they represented the craft businesses local to the sampled consumers in the quantitative study. The author developed schedule questions based on three research areas:

- How do breweries manage food service?
- How is staff educated in beer service and pairing recommendations?
- What kind of relationship do craft breweries have with their immediate competitors?

In recent years, craft brewing has become important for the Tampa Bay area. Cities such as Dunedin, Tarpon Springs, Palm Harbor, St. Petersburg, and South Tampa have experienced increasing numbers of craft breweries opening, and the industry is still expected to grow in future years. Some research even suggests that craft beer tourism could be a form of sustainable tourism (Slocum, 2016). The results of this marketing study could contribute relevant and practical implications for business decisions (like menu selection and consumer preferences) for local Tampa Bay area craft breweries, restaurants, and other food service establishments.

Literature Review

Craft Industry Overview

The craft beer industry has taken off since its humble beginnings as a home brewing hobby, once nationally legalized in the 1970s. Craft beer is set apart from larger traditional beer for being independently brewed, featuring European and innovative styles, and having a higher perceived overall quality. While still growing, in recent years the industry has slowed down as the market becomes both more saturated and approaches maturity, like that of the entire beer industry at large. In 2018, US beer sales reached over 194 million barrels, of which craft beer contributed more than 25.5 million barrels. These statistics represent a decline of -0.8% and an increase of 3.9% in sales volume for the beer and craft beer industries, respectively (Watson et al., 2018). The existing body of craft beer literature reflects a modest but increasing number of studies in sensory and related marketing research. However, the need for continuing research persists. We will first examine the current state of the craft beer industry.

Craft breweries, as defined by the industry's largest trade association, are those which are independently owned, having fewer than 25% ownership by a 'beverage alcohol industry member' and produce less than 6 million barrels per year (Brewers Association). As of 2018, the craft beer industry had an estimated revenue of \$6.5 billion, in which millennial consumers, aged 21-34, made up 40.5% of craft consumers (Lombardo, 2018). To put that in perspective, Anheuser-Busch InBev, the largest (non-craft) brewer in the nation, which as a company holds 39.7% of the market share, earned a global revenue of \$54.6 billion in 2018 (Lombardo, 2019). Competition in the beer industry is strong, and as craft beer continues grow while commercial brands stagnate, those top industry players have been acquiescing to the consumers' choice for craft beer. Since the 1990's, firms like Anheuser-Busch InBev have introduced their own versions of craft beer brands or they acquired independent craft brands seeking the resources to expand (Elzinga et al., 2015). Furthermore, researchers have looked to understand the emergence and persistence of the craft beer industry's development. Carroll and Swaninathan (2000) applied Resource-partitioning theory to describe the craft beer industry, emerging from the existing concentrated beer market, to satisfy consumer's tastes beyond that of a homogeneous product, such as the pale lagers of commercial macro breweries. Strategic alliances, such as the two-part acquisition of the Craft Brew Alliance by Anheuser-Busch InBev, is an example the kind of situation that supports Carroll and Swaninathan's view of the importance of a craft identity in the appeal and survival of craft breweries (Kell, 2019).

McLaughin et al. (2014) examined the spatial and temporal changes in craft beer production in the US by state and region. Their findings described the Pacific Coast, the Southeast and the Southwest regions of the US as high-volume growth from 1967 to 2010, and four states had the greatest impact on the region's performance: California, Texas, Florida, and Georgia. As Elzinga noted the high growth in the 1990s, McLaughin et al. (2014) found that

metropolitan areas, “experienced a doubling or tripling of firms from the previous decade” and a positive correlational relationship between craft breweries and population density (p.16). This finding is also consistent with ‘resort areas’ which can be understood to fall under tourism. Authors such as Slocum (2016) and Murray and Kline (2015) explored the ramifications of craft breweries on tourism in southern states. Murray and Kline (2015) conducted a survey concerning the factors for craft beer brand loyalty in both tourists and residents of North Carolina. They looked at two rural breweries with economic impact in their communities. The authors remarked that rural tourism was an appeal because people living in urban areas lost touch with their cultural identity and individualism. In the search to fulfill this unmet desire, rural tourism and thus rural craft breweries provided that sense of community, as well as a unique product. Their paper also alluded to the potential impact of neo-localism, which Shortridge (1996) coined and defined as, “deliberate seeking out of regional lore and local attachment by residents as a delayed reaction to the destruction in modern America of traditional bonds to community and family” (p.10). The trend of consumer’s desire for more local products and support of local businesses is one that benefits both craft breweries and the local economies in which they participate.

Studies of Craft Consumers’ Interests, Preferences & Attitudes

Italy has been experiencing a renaissance of *birra artigianale*. Several craft beer related literature has spawned from Italy as the microbrewing sector has grown 824% in the past decade and represents 3.1% of all brewing in Italy (AssoBirra, 2018). Aquilani et al. (2014) conducted a study of Italian consumer’s preference of craft beer. Their study compared ‘commercial’ or traditional beer drinkers and craft beer drinkers to identify preferences that impact a commercial beer drinker’s inclination to try craft beer. Those inclinations and behaviors were aroma, perceived quality, the preference for draft beer, and drinking beer frequently. “... It was found that craft beer is chosen for its selection of flavors such as malted barley, chestnut and honey-

flavored beers which increase the probability of perceiving craft beer to be of superior quality to commercial beer” (p.223). Their findings supported the perception that craft beer is of higher quality than traditional beer because of the raw materials and overall quality used in its production.

Further studies into consumers’ interest for craft beer were conducted by Donadini and Porretta (2017). Their primary focus was to understand how traditional beer drinkers conceptualized and characterized craft beer. The authors surveyed 150 ‘industrial mass-marketed beer drinkers’ about 49 beers, of which each had eight attributes to be rated on a nine-point scale of interest. Main takeaways of their exploratory work were that the most important attributes were the type of containers (bottles, cans, PET kegs, stainless steel kegs) and the brewing technologies (unfiltered, unpasteurized, spontaneous fermentation, microfiltration, bottle conditioning) used for the beer. Whereas the attributes of least importance were the brewery equipment (modern vs historical) and brewery location (mountains, hills, flatland). Additionally, in comparison of men and women, the authors found that while they shared ‘similar patterns of interest,’ men found retail price to be more important than women, but that women attached more importance than men onto the type of container, brewing technology and type of brewery (i.e. micro, brewpub, corporate, etc.).

Rivaroli et al. (2019) looked to describe craft beer consumers’ motivations. The authors devised a modified Theory of Planned Behavior to including the constructs of self-identity and the desire for unique consumer products, to understand the consumer decision-making process of buying and consuming craft beer. They sampled German and Italian consumers with an online survey. Their findings were that attitudes were the strongest predictors of consumers’ intention to drink craft beer in both of their samples. Self-identity was the second major predictor of not only consumer intentions, but behavior as well, in both samples. For the German sample, subjective

norms were found to be predictors of consumers' intention to drink craft beer. The authors noted that,

“the fact that the craft beer consumption, but not the behavioral intention to purchase and consume craft beers, is significantly predicted by the consumer's desire for uniqueness, reveals this process is a less cognitive based effort and more emotional one, both for German and Italian consumers.” (p.288)

More broadly, the authors concluded that the motivations to drink craft beer were both cognitive and emotional for the consumer, in considerations of the “direct relation between consumer's self-identity, desire for unique products, social pressure, and the consumer behavior” (p.289).

In New Zealand, Jaeger et al. (2020) researched flavor driven segments within the craft beer segment among their all male, self-identifying craft consumer sample, in a taste test. The first segment displayed a preference for strong, complex flavors (hoppy and malty), while the second displayed one for less complex or traditional style flavors (less bitter). The authors found that the craft style and traditional style beer preference segments shared similar sensory and conceptual characteristics of the beers they sampled, but that their attitudes and behaviors towards them differed. Such that craft consumers who preferred traditional style flavors agreed less with statements relating to the ‘craft beer drinking lifestyle’ and statements relating to standards of quality and authenticity of beer (p.11). While the authors' initial hypotheses were not supported, they theorized that the flavor segments could be the product of a normal transition of craft beer drinkers as the extent of their use and exposure increases. Meaning that by mere and repeated exposure, beer consumers' preferences transition from the low flavor, low complexity to the high flavor, high complexity characteristics of craft beer as they try more novel and strongly flavored beers over time.

Studies of Beer & Food Pairing Principles

An earlier work by Donadini et al. (2008) explored beer and food pairings from Italian consumers and expert points of view. A small sample tasted nine traditionally Italian fares against 18 beers of different styles and alcohol content. Consumers rated the sensory profiles of the food and beer individually, their liking of the beers, and then the suitability of each paired beer and dish. The experts were a panel of sommeliers and international food competition judges. Generally, the experts rated most of the dishes significantly lower in suitability to all the beers than the consumers did. Except for three dishes, both the consumers and experts were able to find an appropriate beer and food pairing, even though those ideal pairings tended to differ between the consumers and the experts. Interestingly, the authors noted that,

Although less educated and thus less discriminating than the experts, regular consumers seem to significantly recognize that more structured, flavour persistent, alcoholic and aromatic beers require structured, sapid, aromatic and succulent dishes. (p.340)

In essence, people can appreciate that paired beer and food need balance of flavors, texture, and body. There have been numerous studies on food and wine and balance, but now pairing beer and food is becoming a more explored topic.

A name sake investigation by Paulsen et al. (2015) looked at the consumer perception of food-beverage pairings, concerning complexity and balance. Pairings of soup and craft beer were used as samples. The researchers chose to use soup as the food item because it was easy to manipulate, a relatively neutral food and, “has a mild, balanced taste” (p.85). In addition, the researchers introduced a Just About Balanced (JAB) scale to measure dominance factors from the beer and soup pairings. They found a positive correlation with high complexity and liking a pairing when harmony was rated high too.

Another study looking at pairing food and beer used a more typical food for its focus: pizza. Harrington et al. (2008) conducted a small study on match perceptions of beer types and

pizzas against gender. Their taste experiment used sequential and mixed sampling, which featured three categories of beer (lager, ale, and stout) and spicy and non-spicy pizza, to determine if there was an ideal pairing. One of their confirmed hypotheses was that when it came to the non-spicy pizza, individual preference had a large influence on subjects' beer selection, but the spiciness of the other pizza also had a significant influence on the perceived levels of matching and satisfaction. In the spicy pizza's case, the authors found that individuals would select the fuller flavored and bodied beers over the other styles in order to match the flavor intensity of the pizza. Consumers chose a more suited beer to the food they were consuming over one they had a higher preference for without food involved. An important note about the previous three studies is that ideal pairings were found when the beer and the food matched each other, or balanced, but did not overpower the other. Restaurants, bars, and breweries could find benefits in trying to create balanced pairings to increase customers' overall satisfaction with their experience.

Methodology

Quantitative Study

Participants

Participants (n=44) consisted of individuals who self-selected to take the online survey format shared from the author's various social media accounts, and individuals randomly selected from guests at a craft beer festival in Pinellas county, Florida in March 2020. The primary selection criteria were that participants must have been at least 21 years of age and had either lived or been to the Tampa Bay area. The age of the participants ranged from 21-64 years and included 22 men and 22 women.

Materials

The author used Qualtrics software to develop a 38-question survey in online and paper formats. In the process of data review, the author discovered some questions were left unanswered and lacked enough responses to run any analysis. Those original questions were excluded and the remaining questions in their constructs were analyzed. See Appendix A for original survey and the evaluated questions.

Procedure

The author conducted three main tests through SPSS 25. Chi-squared tests, independent sample t-tests, and bivariate correlations were conducted on variables of the survey. The author compared the means of the variables and discussed the potential ramifications of significant correlations.

Qualitative Study

Basis of Interviewing

The author followed Smith's approach for conducting a semi-structured interview (1995). There are four ways in which the semi-structured interview differs from the structured interviewing process. The interviewer guides the interview with a schedule of questions while also (1) establishing rapport with each respondent, (2) focusing less on the order of questions, (3) delving into interesting areas that arise naturally in conversation, and (4) following the respondent's interests or concerns.

How the Schedule was Constructed

The interviewing schedule consisted of questions constructed to help answer the main four research questions, in addition to other anticipated themes. For the master schedule, refer to Appendix B. There were three main sections of the schedule; the first was to build rapport with the interviewee and learn about their professional background, the second was focusing on food service strategies and menus, and the third on the industry and consumer related topics. Within any of these sections the author followed along with deviations in conversation topics as they related to themes in and around craft beer. The second section focused on food service and depended on whether or not the brewery of the professional had a kitchen or another form of food service, so the questions for that section changed accordingly to the interview.

Selection of Respondents

In order to select the most relevant respondents for the study, the author compiled a list of independent craft breweries that were members of the Brewers Association in the Hillsborough, Pasco, and Pinellas counties. The author then randomly selected a craft brewery from the list and

contacted a head brewing professional through websites and email to schedule in-person interviews.

Conducting the Interviews

Interviews were conducted at the place of business of the brewing professionals. The length of interviews ranged from 25-48 minutes. Audio was recorded and transcribed with Otter AI and then manually edited for verbatim text, omitting sentence fillers. See Appendices C and D for transcripts.

Coding & Analysis

The author followed Smith's five step guideline to thematically analyze the transcripts (1995). The first step was to become familiar with the content of the transcripts by first reading through without making any notes. Then the interviews were read a second time, the author highlighted text and made note of any seemingly significant or important things the respondents said. Then these highlighted transcripts were read through again to create codes, or preliminary keywords describing the essence of what is being said in the text. Fourth, the author took the codes from both interview transcripts and created overlapping themes. The final step was to find those specific instances within the text to provide quotes for each theme.

Results/Discussion

Quantitative Findings

Demographics

59.1% of surveyed respondents were millennials, between the ages of 21-34 years old. 77.3% of the respondents identified as white or Caucasian. 52.3% reported they had a bachelor's degree. See Appendix F for a more detailed breakdown.

Chi-Squared and Independent T-Tests

The results of a chi-squared test showed that 71% of males preferred beer as their first choice of alcoholic beverage ($p=.05$).

When conducting independent sample t-tests of consumers who had tried different styles of craft beer, the author tested stout, porter, pale ale, wheat beer, pilsner, bock, sour, and hybrid styles, and found significant differences between the means of men and women for wheat and bock style beers (See Tables 8 and 9). This suggests that more men than women had tried wheat and bock beer styles beers ($t(38)=-3.004$, $p=.005$ and $t(38)=-2.358$, $p=.024$). This also suggests that since only two of the eight the proposed styles had significant mean differences between genders that both men and women are engaged consumers. Brewing professionals might take from this that both men and women are interested in trying a variety of beers and maintaining a well-rounded tap list would help to reach those consumers.

Correlations

There was a negative correlation between beer drinking frequency and the likelihood to travel up to one hour to try a new beer (Pearson Correlation $=-.405$, $p=.006$). See Table 10. This inverse relationship could suggest that novelty is not as important a factor for those that drink beer quite frequently. Perhaps the frequency one drinks beer has more to do with having chosen a personal favorite(s) and stocking on beer at home, and thus finding new beers is less important. A practical application for brewing professionals would be to segment consumers by frequency; there appears to be different behaviors between consumers that drink quite frequently and those that drink less frequently.

There was a positive correlation between how often one drinks beer and the level of importance for the variety of food selection at breweries (Pearson Correlation $=.354$, $p=.018$). See Table 11. This suggests that as consumers drink more beers in a session, they are also having an

accompanying snack or meal. Relating back to the previous implication, managers and brewers should listen to consumers that are variety seeking not only in beer but in food as well.

There was a negative correlation between beer drinking frequency and the level of importance of the variety of beers offered at a brewery (Pearson Correlation= $-.395$, $p=.008$). See Table 12. This relationship, similar to the findings of Table 10, suggests that the consumers who drink beer frequently are not as concerned with the variety of beer selection at a brewery as those who drink less frequently. This consumption habit could suggest that these individuals are less concerned with finding novel beers and more so with selecting more of the beers they are familiar with and have an existing preference for. A practical implication for brewery managers could be offering different kinds of beer containers, of different sizes, to accommodate consumers looking for different quantities. Examples of this could be offerings between four and six packs of cans, other possible pack quantities, or growlers.

There was a positive correlation between the preference to drink at an establishment and the level of importance for the variety of beers offered at a brewery (Pearson Correlation= $.379$, $p=.011$). See Table 13. This suggests one of the factors for choosing to drink out is the variety of beers. Additionally, the author observed a strong positive correlation between the preference to drink at an establishment and the preference to drink socially (Pearson Correlation= $.676$, $p<.001$). See Table 14. While this correlation is not surprising, it is important to note this reinforces that consumers have an association between where they are drinking and the social environment that it makes up. Brewery managers could take advantage of the social aspect of the taproom or main spaces to engage with customers, provide games or entertainment that tap into the social environment. The author did not find a significant correlation between the preference to drink out and to drink alone.

There was a negative correlation between the preference to drink at an establishment and the importance of the variety of food selection offered at a brewpub or brewery (Pearson Correlation=-.341, $p=.024$). See Table 15. In this case, the inverse relationship might suggest that consumers do not think of food as a top factor in selecting a brewery. However, similar to food selection, a brewery's location in relation to nearby businesses with complimentary products could have an impact on the importance of food selection. For instance, if several restaurants are within walking distance of a brewery, consumers may be less concerned with what is offered on the brewery's menu if they can order from a nearby restaurant.

There was a positive correlation between the preferences to drink at home and to drink alone (Pearson Correlation=.366, $p=.015$). See Table 16. This suggests that this type of consumer, who prefers both being home and alone to consume beer, will be more difficult for brewers to reach than other consumers because of their established preferences.

Qualitative Findings

In the process of analysis, four themes emerged encompassing the nature of the craft beer business: the value of craftsmanship, local business collaboration, staff education and dedication, and the importance of tastes and preferences.

Craftsmanship

As the industry name indicates, craft beer indeed requires skill in both the art and science of brewing beer. For the purpose of this study the author defines craftsmanship by two important elements present in both interviews: emphasis on quality and attention to detail. In addition to being present in both interviews, both factors are hallmarks of any craft or artisan industry, but especially of craft beer. Attesting to one such instance, one brewing professional said of his low volume, but high margin beer that he, “sell(s) it for a higher price, because of the time, effort, and energy that it takes...to make it,” (K. Johnson, personal communication, March 17 2020). In

production there are other factors that set craft beer apart from macro lager breweries. Both participants described how they would learn how to brew a style of beer through experimentation in the style's traditional fashion before innovating it with creative ingredients and adjuncts. Then in idea conception for a new beer, the brewing professionals found similar inspiration that,

Usually it starts with drinking a beer somewhere else and being like, wow, I like this, this is good. I wonder what ingredients the person made to use it, or how they [did it] process-wise? Then you kind of go down that rabbit hole of doing your research of a certain style of beer and... how that style would have traditionally been brewed. (K. Butler, personal communication, March 4 2020)

Craftsmanship in brewing lends itself to the protection of important product qualities such as flavor. In another shared instance, the brewing professionals found pasteurization to be an unacceptable method of preservation, though not for its inability to prolong beer's shelf life. Rather it was unnecessary because beer is a product that is not too susceptible to microbial issues. Furthermore, one professional opposed the use of pasteurization as it, "will have some form of flavor degradation just by doing that, and so we don't do that here. We never will" (K. Butler, personal communication, March 4 2020). Focus on quality and attention to detail did not stop with production. Inherently as small businesses, craft breweries are members of their local communities, and thus connect with them in varying ways. In some instances, the very name and brand label of beer cans were utilized to express deeper connections between the brewery and consumers by, "try(ing) to create some elements and create some awareness and use the names that make the most sense for the consumer to be able to engage with, especially our local community" (K. Johnson, personal communication, March 17 2020). This exemplified the positive impact of neo-localism in which craft breweries tap into the regional lore of the neighborhoods and communities they are a part of (Shortridge, 1996). In the past, macro lager

breweries have utilized the marketing potential of their product packaging, but connection to consumers at the community level with product packaging is an advantage craft breweries possess.

Local Business Collaboration

The author thought that this theme would emerge, especially in consideration of the history of the craft beer industry's emergence from home brewing (Elzinga et al., 2015). Indeed, homebrewing and the relationships formed during those years of shared hobbies created an entry for craft professionals to transition from interest into professional roles. As mentioned previously, craft breweries are small businesses that are a part of the communities they serve. The theme of collaboration encompasses not only that of other craft breweries, but also with local establishments providing complementary products.

Food trucks are a common option for providing food service to craft breweries lacking the space or equipment to do it in-house. Such was the case for the breweries of the interviewed professionals in some capacity. The choice whether or not to collaborate with these food trucks more so tended to reflect the opportunities of the external business environment; whether craft breweries choose the cost of establishing a kitchen or relying on alternatives, like food trucks or neighboring restaurants. This was exemplified in one professional's statement,

We used food trucks when we first opened because there weren't as many restaurants around at the time, for the first few years. And it went well, it got to a point where there's just such good food around us that the food truck was either taking up space, it was kind of loud with generators, and we actually had a few incidents with some of them that weren't good. (K. Johnson, personal communication, March 17 2020)

In Florida, tourism is an incredibly important economic driver, and while the local community is an important target market for craft breweries, so are the many tourists. Both interviewed brewing professionals indicated that tourism was significant or central to the business' demand. There was the opportunity for collaboration in this space too. In addition to their taproom offerings, one brewery provided craft beer trails in which private buses stopped at several craft breweries and some restaurants in close approximation. The professional noted that while these were also competitors, it helped the business build revenue and become a destination. This type of collaboration resembles the economic concept of the network effect, in which the more users of a network there are, the more value those individual users will gain from it, up to a critical mass, in which additional users results in a decreasing marginal return (Shapiro & Varian, 1998). Thus, up to a certain market saturation, craft breweries will likely benefit from the network effect because of their collaborations. One brewing professional quoted an idiom espousing, "they say a rising tide lifts all ships; it's very true" (K. Butler, personal communication, March 4 2020).

In this study, some forms of these collaboration involved borrowing bottles from competitors for a small batch release, making collaboration beers with other breweries, hosting special events that featured other breweries' beers, and the use of guest taps. Guest taps have the potential to be strategic marketing tools for craft breweries. Guest taps can be used to round out an entire tap list for a brewery, filling in gaps to provide a full variety of beer styles. This would allow craft breweries to focus on core products while being able to satisfy variety seeking consumers. In contrast, a different advantageous way to use guest taps is, "to introduce the consumer to something that maybe they've never experienced, which I think only opens up our ability to introduce them to things that we're interested in making... It gives them a better perspective on what we're doing and why we're doing it" (K. Johnson, personal communication, March 17 2020). This brewing professional captures potential in using guest taps for market pre-

testing. This approach essentially ‘tests the waters’ for the potential demand of a beer style before going through with recipe development and production.

As mentioned previously, it is this history in homebrewing and the personal relationships established prior to starting breweries that has fostered the level of collaboration, arguably friendly competition, and network economy of the craft brewing industry. As one professional explained,

Most of us have known each other forever. You gotta think, before the sort of craft beer boom in the area happened, we were all homebrewers, and were all part of the same homebrew clubs, and we used to make beer together. We were friends, all of us, before we all open breweries. So inherently, we're still friends. (K. Johnson, personal communication, March 17 2020)

Staff Education & Dedication

The third theme that emerged in relation the nature of the craft beer business describes the education, training, and dedication of brewing & taproom staff. Much like a sommelier is to wine, in the world of beer, the experts of serving it are trained in the Cicerone program. The program covers knowledge in five areas: keeping and serving beer, the vast array of styles, beer flavor and evaluation, beer ingredients and brewing processes, and pairing beer with food (Scholl, 2018). There are four tiered levels of certification. The Cicerone program was founded in 2008 by Ray Daniels because he, “wanted to motivate servers and retailers to ‘up their game’ by learning more about proper beer service as well as beer styles so that they could talk to their customers about their offerings” (Scholl, 2018). Both brewing professionals indicated that while server training was developed in-house, they had at least one, if not more servers that were Cicerone certified at some level among their staff. For instance,

Most of the people that work here, they're very beer-centric people so...[they] are well versed enough to not need to be trained, they already know how to describe that to a customer, of what it's going to taste like... if it's going to be grape fruity or piney, or whatever. They're actually quizzed on it, too. (K. Butler, personal communication, March 4 2020)

In some cases, servers had craft beer knowledge and self-interest before employment, while others continued their education during employment with encouragement and resources from management.

Tastes & Preferences

This final theme encompassed how the tastes and preferences of brewing professionals reflect on the products they create, the food pairings they explore, and where those intersect in the general trends of the industry. At least for both brewing professionals interviewed, typically the creative process of starting a new beer stemmed from simply brewing a style that they liked. One professional remarked about wild fermentation beers that, "I've always been interested. I did them when I was homebrewing as well... I was interested in exploring that. I like drinking those beers, so I like making them" (K. Johnson, personal communication, March 17 2020). In respect to food and beer pairings, the author noted that balance was either suggested or explicitly mentioned as important to making well suited pairings. Such as the inherent balance of a beer as a standalone product, or in balancing pairings like the deep, roasted flavors of an imperial stout with vanilla ice cream. As explored in the literature (Donadini et al., 2008; Harrington et al., 2008; Paulsen et al., 2015), there seems to be some basis for the principle of balance in pairing food that could warrant future research. However, a business must produce what consumers demand, and overwhelmingly the craft brewing industry is still dominated by pale ale, and especially IPA style beer. As of the 2018 IBISWorld report on the industry, IPA style

beers made up 25.2% of revenue, followed closely by Belgian witbiers, which pulled 20.6%. (Lombardo). Furthermore, both brewing professionals talked about the continuing dominance of IPAs and other trending pale ale varieties in the craft brewing industry, one stating, “usually our top selling beers in the tasting room are almost always an IPA” (K. Butler, personal communication, March 4 2020).

Limitations

Implications of this work are limited by the small sample size used in the quantitative and qualitative methods. In consideration of the impact of COVID-19, data collection was halted in March 2020 amid concerns for participants of the study. The author also wishes to note the original survey was designed to gather data about non-craft beer drinkers, but the shorten window of data collection resulted in fewer respondents and thus the inability to perform any statistical analysis for this group. While explored in other literature, the differences and similarities of craft and non-craft beer consumers is an area that still warrants future consideration. Another limitation that should be considered is that in the nature of the self-reported data, there is always the potential for bias to appear.

Conclusion

Given the growing presence of craft beer in the Tampa Bay area, and future potential of the industry to come, research that looks into the nature of the craft business environment and the preferences and expectations of consumers is impactful for local breweries, bars, and restaurants. Through an exploratory study of quantitative and qualitative means, the research has investigated potentially meaningful relationships between the frequency that consumers drink beer, variety seeking behaviors with regards to both beer and food, and the preferences for different social environments for engaging in beer consumption. In the qualitative exploration, relevant themes of craftsmanship, local business collaboration, continuing staff education and dedication, and the

tastes and preferences of brewing professionals were identified in the nature of the craft beer business and the implications of these topics and the execution of them could be a topic of future research. These and the other preliminary findings add to the existing literature by bringing light to potential avenues of further research concerning craft beer consumer attitudes, motivations, and behaviors.

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Appendix A

Full Survey Questions

Note: Q26-29 and Q31-33 were excluded from analysis due the low response rates of those questions.

Q1 When choosing an alcoholic beverage, what is your preferred first choice?

Q2 How often do you drink beer?

Q3 On what occasions do you drink beer?

Q4 How often do you choose a beer, instead of other beverage options, when at a dining establishment?

Q5 How often do you choose to drink beer at home?

Q6 How likely are you to travel up to one hour to try a new beer?

Q7-10 How much do you agree with the following statements?

Q7 I prefer to drink beer at home.

Q8 I prefer to drink beer at a drinking establishment (like a bar, brewery, restaurant, etc.)

Q9 I prefer to drink beer socially

Q10 I prefer to drink beer alone

Q11-15 For the following, please select the level of importance each option is to your decision to visit a brewery.

Q11 Ambience

Q12 Level of service

Q13 Variety of food selection

Q14 Variety of beer

Q15 Distance from home

Q16 Do you usually have a beer with your food or meal?

Q17 If so, what do you usually eat with your beer?

Q18 When visiting a bar or brewery, do you normally prefer an appetizer and/or a meal with your beer? (You may select multiple)

Q19 What is a food option you have never seen, but would like to have offered at a brewery or bar?

Q20 When you think of having a beer with your food, which of the following food tastes do you like, dislike, or have no preference for?

Sweetness, Spiciness, Saltiness, Sourness, Bitterness, Richness, Umami

Q21 Have you ever tried a craft beer?

Q22 What made you choose craft over an alternative?

Q23 How often do you choose craft beer over commercial beer?

Q24 Do you prefer lagers or ales?

Q25 Which of the following styles of beer have you tried?

Stout, Porter, Pale Ale, Wheat beer, Pilsner, Bock, Sour, Hybrid, Other, please specify:

Q26 Have you ever been to any of the following Tampa Bay area craft breweries?

Q27 You indicated that you visited one of the previous breweries. Which beer(s) have you tried from that location?

Q28 Did they have food on premises for purchase?

Q28a If you ordered food, what did you choose?

Q28b What kind of impact did that make on your overall experience?

Q29 Were there nearby food vendors or restaurants to accommodate?

Q30 How important is it to you for a brewery to offer in-house food service?

Q31 Why have you never tried craft beer?

Q32 What brand of beer do you typically buy?

Q33 Why do you choose that brand?

Q34 If you were to consider choosing a craft brewery, how important would it be to you for them to offer in-house food service?

Q35 What is your age?

Q36 What is the highest level of school you have completed or the highest degree you have received?

Q37 Which gender do you identify as?

Q38 Which race/ethnicity do you identify as? Q1 When choosing an alcoholic beverage, what is your preferred first choice

Appendix B

Brewing Professional Interview Schedule

Building Rapport:

How long have you been professionally brewing beer?

Pre-career? How did that lead to where you are now?

How did you become a/ the brewmaster for this brewery?

Formal education & training?

How long have you been with this brewery?

Can you walk me through an average day in your position at the brewery?

What is your process for creating a new beer? From the idea to sipping the finished product.

Inspirations, goals, methods?

Who is your team?

Menu Section:

Is food served here? Why or why not.

Why not:

Reasons, plans for the future, or what prevents that?

Why:

Do you collaborate with the kitchen on menu planning for the beers offered?

Do you ever create a beer with a specific meal or food pairing in mind?

Do you currently have a preferred way you pair beers and food?

How do you train servers/bar tenders on your beers offered?

Do you have any employees that are Cicerone certified at any level?

Have you noticed any food items and beers that sell particularly well together?

Final Section:

Is there a style of beer that is most popular with your customers?

Have you gotten negative feedback about your beers?

How did you (and more broadly the company) respond to it?

What do you think draws people to craft beer?

Potential Ideas to Discuss:

Diversity in the industry

Challenges in the market

Trends in customer behavior

Guest taps

Beer cocktails

Sustainable tourism

Preservation and shelf life

Brewer's Association

Appendix C

Transcript of Interview with Kevin Butler

Interviewer: Danielle Heidkamp (DH)

Interviewee: Kevin Butler (KB)

Guest: Cathe Dolan (CD)

Date: March 4, 2020

Location: Brew Bus, Tampa FL

DH 0:00

All right, thank you so much again for sitting down with me. I guess first I just kind of want to talk a little bit about your career, how you got here. When did you start brewing for Brew Bus?

KB 0:13

Yeah, actually it was Florida Avenue before it was Brew Bus. I got here in summer 2013. Before that, I was in the Navy. I was a homebrewer. And I had a very short internship with a friend of mine that owned a brewery in Washington state. So I was able to kind of learn the basics of commercial brewing. Because I kind of knew what I was going to do. I knew I was going to be coming back to Florida and everything else and so just got a very, very rough short hands-on education in a very short amount of time, before I jumped as assistant brewer here, and then the previous head brewer trained me for three weeks and then he quit and left. And yeah, I was brand new. It was just like, there you go. It was very intimidating. Yeah. And then six months after that Brew Bus bought Florida Avenue, and then we now brew both brands - that was five years ago. So been here for five years.

DH 1:21

Could you walk me through like what is like a normal day for you here?

KB 1:25

For me, I don't have any normal days, I really don't like I have in my mind what I'm going to do that day. And then 10,000 different things pop up at any given time and I am stripped away from what I want to do and end up doing, taking too much time doing something else. But basically an ideal day for me is I usually come in and make sure that everything that we're going to be packaging that day is ready to go and what it needs. What I mean by that is, are, we have equipment that measures the amount of dissolved oxygen, the amount of CO₂ that's in solution as well. And those two are pretty critical because we have to have the carbonation level correct before we start canning it. And then also, if the dissolved oxygen is too high that we know that the shelf life is going to be very poor, it's going to stale very quickly. And we have to make a call on whether or not we even want to pack into that beer or just dump that batch. Yeah. And so we've never - fingers crossed - we've never had to do that. It's always been well within spec and, but you never know what a little piece of machinery that... mainly our biggest risks are transferring the beer out of the fermenter and into the tank that we carbonated it and it goes through a centrifuge, which basically spins around pulls all as much or as little particulate out of solution as possible. Like for a beer like this [glass on the table], we go through very, very fast so that it didn't have as long a time exposed to the centrifugal forces and so there'll be more particulate left in suspension so it has a hazier appearance and then over here like this [other beer], we'd go through very slow so we can have plenty of time to pull everything out, so it's crystal clear. Having a piece of machinery that has that amount of moving parts, technology in it, they're susceptible to failure, having mechanical problems and if it does in the middle of a run, it

might introduce an amount of oxygen into your product to make it completely unacceptable to even sell. So luckily, we maintain the equipment very well. That's another thing I do here, is if anything breaks, or is suspected of working improperly, I will diagnose, troubleshoot it, figure out what's wrong with it and fix it, if I can. That's kind of what I did today with our - we have a booster pump that boosts up city water pressure, so that we have enough water pressure to run multiple things at one time, and the booster pump parts in it broke, wasn't working, whatever. So I have that completely torn apart this morning and put it back together with new parts and stuff so that we aren't down basically. So I do stuff like that. I do all the recipe development, scheduling of who is brewing and when and what basically. We have a production manager here who he helps me as well. Basically what he does is he looks at sales forecasts. It's like, okay, we need to make this because he knows how long each batch basically takes, and so he'll see like inventory and sales, and be like, 'well, you know, at this point, we're going to run out of this, we need to brew this.' And so that's what he does. He says, 'this week, we need to brew this.' So I order all the ingredients, I schedule what days we're going to do it on, who's going to do it. That's typically my day or scrubbing the floors, seriously... I have no idea. It's, it's literally anything that needs to get done. I see a problem, or somebody struggling with something and needs help, I will absolutely jump in and basically figure out how we can get this task done effectively, in the least amount of time.

DH 5:44

Who is your team?

KB 5:46

We have five of us back here. Adam, he runs set up for us most of the time, he does a lot of cellar work. Basically he's monitoring the fermenters for the gravity. When fermentation is finished, he is adding additions to the tanks, whether it be things like fruit, hops, things like that that happen in the cellar, so like dry hops [for] IPAs and stuff. So we'll add those in there. Nick is a shift brewer, basically he makes most of the production size batches. Kyle, he does use the second shift brewing. So like, Nick will come in at 6am and he'll finish at like 2-2:30 and then Kyle pick it up until it's finished, which is usually like 6:30-7 o'clock at night. And then in between that you do whatever needs to be done. Vinny runs the packaging line, most of the time he runs the canning line. And Jake does packaging, washing kegs, logistics, building orders, sending them out the door. But we all do everything. We all have our specialties, but if anything needs to be done, we're cross trained in just about every aspect.

DH 7:12

That sounds like a strong team.

KB 7:13

You have to. You have to be. Any craft brewery. If you have someone who doesn't know [or] is unfamiliar with a piece of equipment, they better get familiar with it very quickly. Especially if there's only one person that knows how to operate it, and they're sick for the day, or they get hit by a car or who knows?

CD 7:31

Or the fact that they may need a day off or that yes, people can't work seven days a week.

KB 7:34

Life and business must go on. You gotta keep emptying these things and filling them back up again. That's the name of the game and doing it with a very high degree of quality.

DH 7:47

So he [the bartender] was telling us about some of the beers and how you've gotten some recent awards from and I was curious. How often do you make a new beer and what's your process for starting...

KB 7:57

...a new one? We have a pilot system over here. So basically our main system is a 20 barrel system. A beer barrel is 31 gallons. Our pre boil is usually 775 gallons. We'll boil off about 50 gallons an hour, so we usually end up with 725 gallons, and we'll double or triple batch them. That's our main production system. Now our pilot system does about one fifth of that volume, so 100-120 gallons, basically. And that's where all the R&D comes in. Basically, while we've all these big tanks that you can see right through the window there, those were all be filled with all of our core products that we distribute and can. Like the beer you're drinking, the Bohemian Pilsner, that is not something we distribute yet. That's like more just development, and that's the small system, that's 120 gallons at a time. And that only feeds the tasting [room]. We don't can that; you can't find it at any grocery store. The only place you can find that beer is here. And so that's how we, you know, we figure out what ingredients we like, you know, certain aspects of a beer, you might like, 'oh it needs a little bit less this, more that.' And that's what the pilot systems for, dialing it in. And then once we we're like, 'yes, we are happy with this recipe,' let's scale it up, brew a big batch of it, and send it out to the grocery stores.

CD 9:39

On a wing and a prayer.

KB 9:42

Usually these are a proven track record of sales, and then you'll introduce something new to the market. A beer we're canning right now, it's called Luminescence, it's a hazy IPA. It's a very trending style that a lot of people made. A lot of people made and kept them only in the tasting room on draft only; they don't they don't age very well. The amount of hop material in there, it oxidizes very quickly and it loses its bright, tropical, fruity resinous aroma and it kind of turns very muted and even the color of the beer will change too, and it tastes stale, tastes pretty bad after about a month and a half - two months. A lot of people say these are good for three months in the can and I've never seen, not a single hazy IPA that tasted great in the can three months later. Never. But that's something we're working on right now, is a very shelf stable very, distributable. if that's a word, probably not...

CD 10:48

Because how long do want it to actually last?

KB 10:52

I mean, ideally, sky's the limit. That the longer shelf life you have on a on a beer where it tastes fresh and it tastes like it did when you packaged it, the better. That's why, like the big breweries, Anheuser-Busch, MillerCoors, all of them, they pasteurized the beer, so it gives it a very long shelf life and it will taste pretty much more or less the same as it did day of packaging. But obviously pasteurization is heating it up, so you're cooking it right after the fact. That in and of itself will have some form of flavor degradation just by doing that and so we don't do that here. We never will.

DH 11:46

So, obviously, you have your forecast that you have to stick to for your brands. But when you're on the creative side, what's your creative process for when you've decided to do a new beer.

Where do you start with that?

KB 12:02

Usually it starts with drinking a beer somewhere else and being like, wow, I like this, this is good. I wonder how this... wonder what ingredients the person made to use it, or you know how they [did it] process-wise, and then you kind of go down that rabbit hole of doing your research of a certain style of beer and how it's made, and what ingredient to use... You're like, okay, these are the ingredients I want to use, and this is the process I want to use. And I want to do it traditionally and how it would have been done, unfiltered, cold condition for a very long period of time. So I did all of those things, of how that style would have traditionally been brewed. And that's really how it goes. Or it's just like for fruity beers or sours or something like...what you're drinking, the guava and passion fruit Berliner [Weisse]. You just know what fruits you like to eat and you're like, I wonder what this would taste like after you fermented it in a beer, and sometimes it tastes similar or smells similar to the fruit that you ate and then sometimes it doesn't survive fermentation very well. Certain fruits that just aren't really aromatically strong like blueberries. I love blueberries, so good, right? We made a Berliner Weisse beer just like that, put blueberry puree in it. Two years ago was one of our seasonal beers and I put so much blueberry puree into it where the beer was deep purple, but the aroma was very disappointing in the payoff, like it just didn't have [the blueberry] flavor and aroma. They really don't. Yeah, and strawberries are another one;, you have to use so much strawberry to actually get it to even remotely smell or taste like strawberries. And then other fruits are very one dimensional and very

strong - passion fruit, passion fruit is - has such a strong aroma that it will... so you can use a very, very little amount of that and it will come through in the finished beer. Guava is another one. And that's why we're just like I'm gonna blend both of those together and make it very tropical fruit forward. And we do raspberry, raspberry works very well too. We've got a raspberry up there too, and it makes the beer look beautiful, beautiful. Red, reddish pink, magenta and it smells very strongly - a lot of berries work. A lot of the multi-lobed berries, like blackberry, boysenberry, raspberries, stuff like that, that kind of comes through more so than blueberries do. That's pretty much the process on that.

DH 14:57

Speaking of food, I was curious, do you ever collaborate with the kitchen on what they make and how it goes with your beers?

KB 15:06

Yeah, sometimes it's desserts really. Like if we have a big decadent imperial stout they'll do - kitchen in the past has made homemade ice cream. We've made stout floats, basically by putting a scoop of ice cream inside of the float and then serving it together. And I like those. Yeah, I had one out in Washington, was living out there. Russian Imperial stout, which it's not a sweet stout, very roasty and very bitter and you put a scoop of vanilla bean ice cream in that, and all those flavors they meld so well together. That was like my go-to desert. There's a brew pub out there called Boundary Bay, like they would have an imperial stout float that I'll get it for dessert when I go there to eat. So good but we do stuff like that.

DH 16:04

I was looking at your guys' menu and you have a lot going on. What about in terms of like the savory side?

KB 16:13

Yeah, they use a lot of beer in the cooking, I do know that. And there's always suggested pairings of the beers we think go well. As far as the savory side of like a specific pairing, we don't really do a whole lot of that. But all the servers know kind of know.. you know say you're getting tacos or Nashville hot chicken or something like that, they'll go [recommend] IPA or pilsner or something like that, it usually pairs well with spicy foods. Or for something more robust, like a red meat dish or something like that, they'll go Irish red, rolling dirty or brown ale. They both pair very well with like a hearty, heartier [foods]. We've made chili with the brown ale before too. So we try to try to work it in there while we can, but usually it's after the fact. It's not like a premeditated thing for the beer. The kitchen isn't going to be like, okay, here's this dish we have, make a beer to pair with. It doesn't work that way. We make what we want to make and then we'll figure out after the fact what this [beer] would mix well with.

DH 17:40

In terms of training your servers and bartenders, do you train them for ways to pair beers with or to make recommendations?

KB 17:52

Yeah, we do. One of our staff here, she is like a level something Cicerone. So that's really more of her more so than brew staff, that's really more of her avenue. Basically, we train the staff on or I will send out email to the tasting room manager, basically just to say this is the next beer we have coming up, these are the ingredients it's made with, this is the aroma, and the alcohol by

volume, color, stuff like that. So then, in most of the people that work here, they're very beer-centric people so they already know - they say, 'oh, we've got this 6% American IPA coming up with this hop.' Most of them are well versed enough to not need to be trained, they already know kind of what. - the okay it's going to be grape fruity or piney, or whatever, you know, they already know kind of how to describe that to a customer, of what it's going to taste like. They're actually quizzed on it, too. They get like little quizzes, I think monthly, they write down their answers about, what's what hops are in this beer? It's something they learned, and they're expected to know.

DH 18:34

Is that something that you that you do through the Cicerone program or just in-house?

KB 18:42

No, that something the tasting room manager does with the staff, it really has very little to do with me, other than asking me about what's going on in there [in the brewing room], and then they handle that. I mean, I would love to be involved in that. Of course, there's so many different projects and different aspects of the business I would love to be involved in. But honestly, at the end of the day, I literally don't have time. And a lot of times, I don't have time to do the things that I need to do. I gotta meet some of these needs down here at the bottom of the pyramid before I can ascend up here to hypotheticals and stuff like that. But they do a great job with it without me. I just give my inputs of technical stuff. And then the more artistic level...they handle that kind of stuff.

DH 20:23

Okay. So my next question you may or may not be able to answer it, I guess but, have you noticed, I know you're more on the brewing side, but have you noticed menu items from the kitchen and any top selling beers that they just seem to go really well together?

KB 20:44

Cheese curds really. We make fried cheese curds here, with a buffalo ranch dipping sauce. And usually, because I go to all the production meetings I hear all the tops selling everything for the week and so... fried cheese and beer in general just pairs really well, it's salty, and it's chewy and gooey cheese and wash it down with a crispy beer. I mean, that's probably our top selling pairing with any beer. Usually our top selling beers in the tasting room are almost always an IPA. Yeah, almost always some form of IPA.

DH 21:30

Do you know why that is?

KB 21:33

I mean, that's just in the craft beer world in general. IPA is still the number one selling craft style that there is. I think it's just kind of what drove the growth of craft beer in general was IPA. Like the older breweries, the pioneering craft breweries, that's kind of what they sold. Sierra Nevada, back in the 80s they're making Sierra Nevada Pale Ale, it wasn't an IPA, but it was a hop forward beer in a world of macro lagers that tasted like water. Yeah, they [consumers] were like, 'holy crap! This is like bitter and it's got a lot of aroma and flavor and all that.' These beers are made out of malted barley, water, hops, and yeast, and so it's just using more of those ingredients gets you an IPA basically, or pale ale or something forward like that. I think that's probably why, it's

just it's traditional - it's simple ingredient beers that are just using more of things that we love about beer in general. Malt and hops. More malts more hops.

CD 22:56

Well also I mean, I remember when Busch Gardens had their brewery.

KB 22:59

Yeah, that's this system right here. Not the big one, the little one that they had in their beer school areas. That's my system that I have here. The original owner of Florida Avenue, his company had an electrical contracting company and they had the contract for doing all the - basically just they had an office at Busch Gardens so they did all of the electronics and all the rides, the lighting, you got to think of how much electrical components there are at Busch Gardens and his company was permanently stationed there. And I guess you when they shut it all down, he came across this equipment was like, make you a deal on this. He bought it and then they started the brewery. And we still use, we still have a few of the tanks and the kettle and it was from Busch Gardens. Yeah, 90s mid to late they put that in there.

CD 24:00

Yeah, that's very cool.

DH 24:03

I see a lot with a lot of breweries where they partner with food trucks to provide food instead of doing it in house. And I was curious if you knew why Brew Bus has decided to do their own in-house kitchen?

KB 24:18

A lot of that is, you see in a lot of tasting rooms, or if they can afford it and they have the room to do it, most craft breweries, now, when they go to build out a tasting room and all that they just go and have their own kitchen. And the reason why is, I'm not trying to talk bad about food trucks, but they're very flaky. You'll have to schedule one food truck to be there at the brewery and then they just won't show up. Then it's like, what do you do? You tell your customers, hey, this food trucks gonna be here on this day. They plan their day around it, and then it's like, oh, they're not here anymore. And it's just a lot easier... it's consistency. They're completely inconsistent as far as availability, and even the products that they sell or serve. Here, we can have a consistent menu. And if somebody has a sandwich here that they like a lot, when they come back the next time, it's gonna be the same, right? It's gonna be as good or better than it was before. And so it's just all about availability, consistency, and -

CD 25:34

-See, for some reason I thought it had to do with licensing and I don't know why I thought that.

KB 25:39

Well if you have a kitchen, you can't have dogs in the you know, no pets are allowed in the brewery or in the, the restaurant now, well now it's no longer just a tasting room, a tasting room you can bring your dogs in and everything else, but so I guess that's, that might be you know, health department stuff. You know obviously if you have a restaurant you get inspected by the health department and all that. Like breweries, I guess are susceptible to that, but we never do. And probably the main reason is you can't food poison somebody with beer. There are no pathogens that survive in beer that are harmful to humans. So beer might taste really, really bad, but there's not a beer that will ever make you sick. Unless of course it's has some chemical

leached into it like a cleaning product or something then yes, yeah, I can kill you. Yeah, but from my microbial or pathogen standpoint, Good to go. Won't get sick.

DH 26:50

So speaking of the more negative end, have you - I'm sure it's happened, but have you ever gotten some type of negative feedback on your beer?

KB 26:59

Oh, absolutely! Oh my gosh, they literally have Instagram and Facebook parody pages of beer reviews. I always thought it was very funny because I was a little critical of somebody else's work, and they got very upset about, but it was not beer related or anything, it was something totally different. And they got upset about it then and I was I was telling the story to people and I was like, I don't know why they would get so upset about that. We as brewers, literally have multiple websites and publications and stuff that their sole purpose is to be critical of our work. You know, and sometimes you read very flattering, nice things and other times it's awful. You see Untapped is one of them. It's an application on your phone. They give you [the beer] a bottle cap score, where you can give it a quarter of a bottle cap all the way up to five. Seeing a quarter point two-five out of five bottle cap rating, and then some nasty comments about it are usually, for me, something that bad I usually discount it. Because some people are just terrible, stupid people, and so it's really more of a reflection upon them than it is reflection upon us or the work we do here. I've read plenty, and sometimes it's good feedback, right? Sometimes it's negative, but it's good feedback. And [on Untapped] I've actually asked for a friend request from that person, and then I can send them a message and be like, 'hey, sorry about this.' A long time ago we had a porter that we'd put a bunch of different ingredients in and I guess the bottle got

infected and so when they pop the bottle off, and in bottles that shows you how long it was because we don't even [use bottles anymore] we can all the beers now, but they had the bottles gushing. It basically over carbonated because you had some wild yeast in there that continued to ferment and the bottle started gushing. I was like, 'I'm really sorry about that, we're aware of this, just back come to the brewery, we'll give you a free one and makeup for it,' type of thing. And then you learn from that too. And you learn, okay, we need to be better about a, b and c. That was four and a half years ago, hasn't happened since.

CD 29:42

I guess just as a segue, just because I'm curious. Why the decision to go to cans versus bottles?

KB 29:50

We never really bottled on a bottling line. So we had larger bottles that were manually filled, like 22 ounce large format bottles, but cans in general just makes more sense. A pallet of cans weighs nothing. And there's 8,169 cans, 12 ounce cans on a pallet. A pallet of bottles weighs a lot, so it's expensive to ship, and they can't stack as high so you can't get as many on each truckload. Cattles break, cans don't, they dent. Let's see, bottles are susceptible to light damage of the beer. The crown caps that seal bottles enclosure aren't as good at being - they are more permeable by oxygen, a crown cap, than a seamed and sealed can lid. There's a multitude of reasons why cans are - a lot of people are like, 'well a can will make your beer tastes like metal.' That's fake news. That's only if they if they crack it open and are drinking it out of the can. It doesn't taste like metal it's because your nose is up against the top of that aluminum can - you can smell it. You take that can you pour it into a glass and then you drink it, it does not taste like metal, because none of your beer's touching metal. There's a BPA free, resin liner in the can. So it's never

contacting metal. So there's just lists of why cans are superior to bottles I think can just go on and on and on. It's just logistically everything makes sense. You can take them anywhere. you Like my condo, the pool doesn't allow glass bottles right there, I mean why would you? On a concrete pool deck? You've one false move and you got people walking around with bare feet and broken glass. That's not a good mixture. So cans, it fits, fits everything. I'm all about them, I love them. I think most of the market does too, because there's a lot of used bottling lines for sale and there are not a lot of buyers for them right now. A lot of craft breweries [are] selling bottling lines. Some people spend a million dollars on their bottling line and then it's like, 'oh, we no longer have a use for this. We need to get rid of it. Let's sell it,' and then nobody wants to buy it. That hurts. We never bought a bottling line. We went straight to a canning line, which is smart. Because some people did buy a bottling line and realized, well crap, and then bought a canning line. So that is a big chunk of change to eat, basically.

DH 32:53

In terms of potentially expanding, would space impact you as far as choosing partnering with contract brewing?

KB 33:04

We've done we've done a contract before and that was only when we ripped this building apart, we ripped apart the brewery basically, rebuilt it from the ground up. There's a lot of a lot of things were designed very poorly from the beginning and then a lot of the ways things are plumbed, etc, were obsolete. They were not done the way it should have done so we remodeled the entire thing and while we're doing that it took eight months. The brands still needed to keep going on, so we use BrewHub out in Lakeland. They made our beers for us during that time. And

then once we got it back opened up started brewing back in house, but as far as expansion goes, we're working on project in Wesley Chapel right now, we're already expanding. So we have a brewery that's under a new building that's under construction right now. Off of State Route 54. Yeah, so we thought, you know, the boss thought I was going to be open in March. And I told him when he said that months ago, I told him that he was delirious and I'm like you are, you're not living in reality right now. So I don't know, maybe June? Who knows? We'll see.

CD 34:23

What's the name of it?

KB 34:25

Florida Avenue Brewing, which is weird because this place is now called Brew Bus, it's on Florida Avenue. Florida Avenue Brewing, is gonna be up in Wesley Chapel on Arrow Grass Drive. Whatever, just the name of the brewery, doesn't have to be on that street. Then at that point, I'm gonna have to oversee two separate facilities. Hopefully our main here because we're going to do all the small batch stuff here. So it'd be all the fun, more creative, one-off things and then a lot of production is going to go up there.

DH 35:02

Keeping an eye on all the wort and...

KB 35:04

Yeah, basically establishing SOPs of how, what things done and then obviously, somebody will be in charge there to bounce back and forth. But hopefully by that time, I'll just be able to get back to doing things what I like to do with my hands and making beer, small batch, little bit at a

time, getting creative. That's what drives passion. You know, that's what makes people want to do this.

DH 35:33

The part that you really love.

KB 35:34

Yeah. I'd rather be in here by myself, cranking out a batch of beer, than tracking somebody down and making sure they're doing their job correctly. That's awful. I hate doing [that], literally if I never had to do that again it'd be great.

DH 36:05

I've noticed a lot that craft breweries seem to be, as opposed to other industries even as competitive as it is, they all seem very friendly with one another.

KB 36:14

Oh, yeah, absolutely.

DH 36:15

What's your been your experience with that?

KB 36:22

Yeah, I mean, that has been my experience or that for the most part. There are certain craft breweries whose like ownership, management and whatnot have a different kind of attitude about that. And a lot of them... it is noticed, and a lot of people kind of disassociate themselves from certain breweries, but for the most part, especially all the ones in in our neighborhood in our area

here. I wanted to bottle up a very small run of Bear Lake Stout, and it's not something I'm really known for doing. I didn't have any bottles, and so Angry Chair up the road here, they do a lot of stouts, a lot of bottle releases, and so I just reached out to them said, 'hey, can I can buy 12 cases of bottles from you?' And it was just like, ran up there in the car and pick them up, brought them back. And a lot of the staff, ownership, everything we've known each other for a number of years in varying numbers of years. And so you see one another at events and all that. So there's relationships, obviously, they're established there. And, yeah, I've never really had a negative... I'm not going to I say that - I've never had a majorly negative experience with somebody else at another brewery to make me be like, 'oh no screw them. I don't want any'... type of deal. And so we've all been friendly and helping. We brew collaborations with other breweries. You know, it's usually like other people that we're friends with, and we respect their craft and how they do it. And it's just like, well, let's get together and make beer. It's just like, went back to like home brewing, everybody. Like that's it. Almost everybody in this industry got into it first as a homebrewer. What was it is? Hanging out with your friends in the garage, making beer together. And so you're just doing that as a professional, basically. So yeah, and really, most the time we're not in... it is getting more competitive. Definitely. But when craft breweries weren't as prevalent, and they weren't as mainstream then there wasn't much competition among craft breweries. It was really taking space and tap handles away from corporate beer. Honestly, that's starting not to be so true anymore. So you try to be respectful, not step on anybody's toes. But also you're a business, you're competing.

CD 39:13

When you can your beer where does it get distributed to?

KB 39:18

All throughout the state. It goes into our cooler, really massive cooler right on the other side of this wall right here.

DH 9:25

Do you distribute any farther than Florida?

KB 39:26

Nope, all stays within this state. Right now, we're opening up in the [Miami] Keys soon.

CD 39:37

And is there a specific retail market?

KB 39:41

It's kind of wherever the distributor really puts it, and we have like sales reps kind of work each region of the state and they work with a certain distributor or certain number of distributors, and they're doing the sales calls and foreign relationships with accounts, and then the account buys it through the distributor and life goes on. I forget how many distributors in the state we have now that we distribute through, 13- 20. Somewhere around there. There's a lot of them. Most of our business though, volume wise, is through three or four. So like three or four of those distributors sell 90-90% of our beer. Mainly in our home market right here in Tampa, through Peppin Distributing, they're right down the road, and so we sell probably most of our beer through them.

CD 40:44

Because everything with Publix, then they started bringing a little bit in, and they don't have a lot.

DH 40:51

And now it's like half of the [beer] isle is craft.

KB 40:55

I got to meet with them tomorrow. Our sales reps are bringing them here to the brewery and all that. I will be looking forward to that.

DH 41:09

How do guest taps typically work? You said you have a friendly relationship with other breweries, so how often do you do guest taps here?

KB 41:18

For us? Now, never. And that's kind of, unfortunately, unfortunate. I would like to, because there's some styles of beer that, to round out the tap list you want to put in there, I want to have a well rounded list of beers there. And there's some styles of beer that we just don't make. And there might be a market like you're saying, you like Belgian triples? I don't. I don't really care for that style of beer. So I don't really make them, ever. But you know, we're not we're not in business for me, in business for the customer. So they might want that. I wouldn't be opposed to buying one from somebody I know is brewing. But we used to do that back when we had smaller lists, but right now we produce enough beer to fill up sometimes more than 20 lines, and that's how many we have here. Most of the time they're filled with our beers and it's just because we have the ability to fill them. Other breweries that have maybe a smaller amount of production

and more faucets, they put on a lot of guests taps to fill a void. Most of the time we know how much we have of a certain style left and what we need to make on the small system to kind of fill that space, but I would like to, that's something that's kind of out of my hands. That's a different decision for a different tier of management here.

DH 42:59

Okay, good to know but thank you. But the other question I want to know is that Brew Bus is a member of Brewers Association? How does that relationship work and help you as a brewer? Are you also an independent member?

KB 43:18

Me Myself? No, I myself am well, I don't know if I renewed my membership with Master Brewers Association of America. ... Back to your original question, how the Brewers Association helps the business itself? So they have, it's unfortunate that this is part of business, lobbyists that try to get laws passed that are more favorable to us. They have a website with classified resources to put you in touch with other brewers who might have surplus ingredients or materials that you are in need of, supply chain type stuff. Also, technical data, podcasts, stuff if you're curious about certain subject that you don't know about, you can get the Brewers Association and they have tons of literature and historical data of people who have done it and wrote about it and been like, 'here you go, you want to know about how to do X? Well, here it is. We wrote a book about it. There you go.' Education. For me for especially Master Brewers' Association, education [about] the amount of materials, and videos you can watch. They have websites and everything any anything you're curious about in regard to brewing, I'm sure you can

find that topic in there somewhere and educate yourself about it. So, for me, that's what I use it for.

DH 45:19

Last question. Brew Bus in particular obviously does the bus tours, and craft beer has kind of become a topic for sustainable tourism. I was wondering what is yours or the company's take on the business as a tourist attraction?

KB 45:47

Kind of goes back towards what you're talking about, like collaborating with other craft breweries. The buses that they have here take people from this brewery and take them to other breweries, your competitors. And it does create a destination too. Like on Sundays, I noticed that a lot of people come in here because we do this thing called the local loop. It's basically a few buses driving on a pattern and they stop at a stop every hour. So people come here, they'll start their day and they can sometimes have brunch or whatever they want to eat, and then have a beer here and then purchase their ticket. On the hour, they can get on, take it to Coppertail or they can take it down to Hidden Springs, or they can take it up to Angry Chair or Seventh Sun, or even a non-brewery business. I forget where else they stop. They stop at different restaurants and bars and stuff. It's kind of it helps promote other businesses within the neighborhood or our city, county, whatever. And obviously, it makes us the destination to where they start their journey and a lot of times where they end it. We've got a big parking lot out here; a lot of the businesses in Seminole Heights are not exactly blessed with a large parking lot. I think Angry Chair has like six parking spots. So sometimes it clogs up the local streets and the neighbors get mad and everything else. So you want to go to Angry Chair today, but you don't want to fight for parking

spots. Well, come down here, park in our parking, lot to hop on the bus on the Sunday and take it up there and hang out and bring it back to your car later. I mean, it's a great concept. It works. It's you know, it builds revenue for us and then also helps out the neighborhood helps out other businesses too. They say a rising tide lifts all ships, it's very true. It works.

DH 48:10

Well thank you, I really appreciate it.

Appendix D

Transcript of Interview with Khris Johnson

Interviewee: Khris Johnson (KJ)

Date: March 17, 2020

Location: Green Bench, Saint Petersburg FL

DH 0:00

I'm a marketing undergrad so I did take some time to read on Green Bench's website. It's actually really well made so props on that.

KJ 0:27

Thank you.

DH 0:29

I wanted to ask you, what did you do for training... as far as... did you start as a home brewer and then...

KJ 0:38

Yeah, I was a homebrewer in college when I was going to school at USF, actually.

DH 0:44

You were one of the founding faculty members for the brewing arts program, right?

KJ 0:49

I am yeah, but that was you know, just a few... Ah, man, hang on. Just work stuff...A lot of problem solving right now...And some answers...

Yeah, I was a homebrewer when I was in college, which was 12 years ago - now 13 years ago. So picked it up as a hobby and then it turned into a career. I got a job working Cigar City, worked then for a home brew shop in Tampa called Southern Brewing & Winemaking. I opened a brewery for them, and decided I wanted to open a brewery.

DH 1:36

I was also reading about some of the equipment you guys have and a really great technical process. I was really interested, what led you to- was it just an interest starting with the wild fermentations?

KJ 1:49

Yeah, I've always been interested. I did them when I was homebrewing as well. There wasn't much in the market. So there was kind of a niche there that wasn't really filled at all. I was interested in exploring that. I like drinking those beers, so I like making them.

DH 2:08

Could you talk a little bit about your team, like, who helps you on the day-to-day and the brewing side?

KJ 2:12

So on the production side, we've got three... we have myself, obviously, as sort of the head brewer/production manager, if you will, and then I have three sort of wort producers; Daniel Klein is my first hire back there. He's been with us for five years now. I've known him for years. He worked with me at Cigar City years ago. Tom Brown, who has been with us for I think three years now three and a half years. And then Tyler Singletary has been with us for a year. And

then they share cellar work, as well transfers and stuff like that with the packaging guys, Kyle Rogers, and Teddy Bath. And then we have a lab technician as well, her name's Tina. So those are people that are doing the day-to day-operations as far as production goes.

DH 3:08

I didn't notice online, but do you guys have a food menu here or no?

KJ 3:12

We don't. We don't sell food here.

DH 3:14

Okay. So do you have, like, a relationship with the local businesses to help with?

KJ 3:21

Oh, absolutely. Yeah, there's a taco place right next door. There's Cuban place across the street. There's Thai food there. There's an Asian street fair spot here. Ball Out Market has few restaurants in there. So we work together so people can order food and bring it in.

DH 3:36

Were there, or did you ever have any plans for the future to maybe set up your own kitchen, or?

KJ 3:40

No, I was just, I know beer. Want to make beer. I don't really want to run a staff restaurant staff.

DH 3:51

The other thing I want to ask about - it's great that you have a lot of other local businesses that are here to help in that sense. Have you ever used food trucks? How do you feel about using food trucks?

KJ 4:00

Well, we used food trucks when we first opened because there weren't as many restaurants around at the time, for the first few years. And it went well, um, it got to a point where there's just such good food around us that the food truck was either taking up space, it was kind of loud with generators, and we actually had a few incidents with some of them that weren't good. We had to like kind of kick them off the property because there were some bad nights, with some of them, some of them were drinking too much and some were harassment issues and some of them it was like you gotta go, so it made way more sense just to get rid of all that mess. But I like food trucks. I mean, I eat at food truck, so.

DH 4:36

Another thing that I'm really focusing on is pairing food and beer, which I imagine isn't as quite a big topic here since you have outside food [on premises]. But when you create a beer, is there ever an idea and you think like, Oh, this is a really great beer, do you have a way that you like to personally pair the beer and what you eat?

KJ 4:59

Rarely. Rarely do I make beer from the ground up with the intent to pair necessarily make it to drink it more than I do to pair it, but I do several. I've done several beer pairings at restaurants locally and abroad with our beers. I've always been more interested, I think, in accentuating character rather than contrasting characters. But I do think it's fun to kind of have elements of all

those new pairings. If you're going through different courses with different beers, having some things that contrast, having some things that are texture based, having some things that are accentuating specific nuanced characteristics of those beers. Most of our beers inherently, because I think most of our beers we tend to make very balanced beers as far as the drinkability, I think balance is really the thing that makes a beer pair well with food, kind of no matter what the flavor is, you can find a food to pair with it flavor wise, as long as the beer is balanced, it makes it really easy to pair with food. So whether that'd be a saison, or farmhouse ale, or mixed culture wild beers, or it be pilsner, or it be IPA, the balance in the beers lends themselves to be able to pair with beer very easily.

DH 6:11

Okay, so that was the next thing I was going to go into is your bartenders and your servers. Do you guys have an in-house training? Or have you ever used the Cicerone program or anything like that?

KJ 6:21

No. Our training is in-house, many of our bartenders, all of our bartenders are Cicerone Server certified, but we definitely encourage our staff to continue their own self education and even help to fund some of those courses and stuff for them if they so choose to do so.

DH 6:46

So here's the other thing I want to talk about, about a time that you've gotten negative feedback about your beers. How have you taken that experience and turned it around?

KJ 6:55

Depends on who it's from. I mean, I get negative feedback *daily* from my beers. People are always posting on Untapped or RateBeer or BeerAdvocate, saying 'I hate this for whatever reason, or this is bad for whatever reason'. I think it just depends on who it's coming from. If it's someone whose opinion I trust, then I take it to heart, if it's someone who, just some guy off the street, who clearly absolutely has no idea what he's talking about, then I don't really listen to it very much. Because ultimately, that's what it is. Like these days, everyone's a critic. There's some sort of app that you can download where you can become a critic of anything. And most people aren't very credentialed to do so. I usually try not to let it bother me. I think I've always been very open about that. You may tell me what you think about it. I'm just I might tell you that you're wrong. That might be my response. And that usually pisses them off further, which I'm like, I wasn't pissed off to start with, you were just mad because I'm telling you that you don't know what you're talking about. But if it's someone who does know, I take that to heart. I mean, that's different. We... sanction competitions and stuff like that, and we won all these medals and I share it with the best brewers in the world. And if they tell me that they detect something that's wrong, I mean, I believe that for sure. And I try to use that constructively to make our beers better.

DH 8:24

And at least anecdotally, I've kind of noticed that like a lot of the craft beer brewers around town, they're all really friendly, even though it's a highly competitive industry. Has that also been your experience?

KJ 8:35

Yeah, most of us have known each other forever. You gotta think, before the sort of craft beer boom in the area happened, we were all homebrewers, and were all part of the same homebrew clubs, and we used to make beer together. We were friends, all of us, before we all open breweries. So inherently, we're still friends.

DH 8:57

Okay, so on your tap list, you have got a really big variety that I see. Have you noticed a style of beer become really popular for you?

KJ 9:08

The number one is IPA, for sure. IPA wins, always. It's over 50% of all the craft beer sold in this country is IPA style based, so IPA as well, lagers do really well for us too, like light lager, pilsners do really well, for us volume-wise. I'd say those are definitely the ones that sell the most, but saisons, farmhouse, wilds, that kind of stuff is so niche that like, it's very low volume, but it's high margin. So we sell less of it, but we sell it for a higher price, because of the time, effort, and energy that it takes to get into it, or to make it.

DH 9:43

Mead also seems to be something kind of niche - I haven't seen it in a lot of other places.

KJ 9:48

People don't mess with mead much, but we obviously do. So, again, low volume, high price high margin sells really well for what it is. But if I was trying to make the same volume of mead as I am pilsner or IPA, I would never sell it.

DH 10:06

I've noticed and I've seen it somewhat noted in scholarly articles is that there's kind of a lack of diversity in the industry right now as it starts, mostly because of how it started with home brewers out in Colorado and out west. Would you make a comment on the diversity in the industry and where you think it's heading?

KJ 10:26

I think it's heading in a good direction. We have a diversity ambassador with the Brewers Association now. It started last year, and she's great. There are some festivals dedicated to diversifying the industry. There are some really unique programs that people are putting into place, whether it be nonprofits or collaborations or festivals, as I mentioned, or conferences that are almost entirely dedicated to diversifying the industry. So I think it's headed in the right direction. I mean, as you said, it's, I want to say a long time coming. It's not like our industry is very old, though. It's just the barriers of entry are always better for those of privilege. So you're going to find less diversity in anything that starts for the most part. And then over time, as you recognize those things it's then our responsibility to try to change that. I think that as a whole, the industry is interested in diversifying itself. I think as long as we have that, we're going to keep going the right direction.

DH 11:31

Obviously, right now, it's a total cluster, but what would you say are some of the more traditional challenges to the market or even new challenges that you've kind of found being here?

KJ 11:49

I guess the biggest challenge is how many breweries there are. Tap handles are hard to get. I travel a lot. I was in a few other cities recently a few weeks ago and it's funny to see sometimes

the utter dominance that some breweries may have in a market. Then different cities where you go to a restaurant and there's four tap handles and all four from one brewery - that really doesn't exist much here in this area, because there's so many local breweries. You're lucky to have one of those four, because there's so many breweries, and you're definitely not going to get two or three or four of them. So that's a challenge. Diversifying yourself on site is - building an experience that you can't get anywhere else has become challenging, because you know, no one's making something up now, you're always sort of imitating; there's not really a new idea anymore. So naming beers has become a very big challenge with the amount of beers and breweries that are in the world. You can't really find a beer name that hasn't been used. That's been very hard. I think those are probably the big ones, especially here in the in the area. I mean, obviously right now our biggest challenge is COVID-19 and trying to balance all of our business plans. Our business plan is based off of sales on site and as of an hour ago, for the next month, we've been shut down. So trying to figure out how we can be a player in the market still when the market has been removed. Right, like that's...No, no, no, no, I won't sleep for the next few days.

DH 13:33

I wish you good luck, though.

KJ 13:35

I appreciate that.

DH 13:37

You brought up guests taps - I was going to say, have as far as being a guest tap in another craft brewer's establishment. How do you feel about the relationships, and on using guest taps for other craft brewers in your area? Is that something you do currently?

KJ 14:00

Yeah, sometimes, like last week we had, well it was Beer Week last week, but we had some beers on tap from other breweries. We did an event, a Cloud Water event, they're out of Manchester, UK. I bought some beers from him. Paul Jones is the guy's name that owns it. He sent some beers over from the UK, and we had a Cloud Water night here, so we had beer on tap from him. It's a good way for us to introduce the consumer to something that maybe they've never experienced, which I think only opens up our ability to introduce them to things that we're interested in making. So for example, we sell a lot of other breweries' beer here on site, especially in the cellar, where I have a bottle selection of over 100 bottles from other breweries around the world. The idea there is again to expose the consumer to something that otherwise they don't have the channels -have access to. If I can provide that, what it does is they taste it and they say like, 'holy cow, like this is really good. I've never experienced something like this'. It gives them a better perspective on what we're doing and why we're doing it. Because we're not reinventing the wheel when I'm making something up here. We're making beers that exist in the world, just maybe not something that the consumer's familiar with. So to say that we're not inventing something, you're not trying something here that doesn't exist in the world. Here are examples that do exist that we think are really special and really good as well and that you should be fans of equally as anything we make.

DH 15:23

I've seen a little bit about beer cocktails, but with more commercial or traditional beers. Do you think those have a place within craft beer?

KJ 15:32

Sure. We had a 'beertail' night last year in the Celler, actually. I made a bunch of cocktails with different beers. I love it. I love cocktails themselves, I love cocktail cultures, and I think it's fun to be able to get into... It's like with food pairings, anything you can do to accentuate or highlight or contrast flavors profiles, then I think that's always fun and a good way to engage in something differently than just a pint.

DH 16:01

That there leads us into the next one. With Florida being a big tourist spot, craft beer is kind of starting to become viewed in more of a sustainable tourism aspect. I was wondering how you feel that plays into your business?

KJ 16:16

Tourism is huge for us. Yeah, I mean, it's massive, especially this time of year. I mean, this is like the busiest time of year for tourism. So also why the inconvenience of you know, the sort of [COVID-19] outbreak is really difficult to handle and to survive and navigate. It's a big play, people go to the beach, they come here first or after, you know, people come into town for Rays games, which their stadiums right there. You know that's huge. If we play Boston or the Yankees it's packed with Boston and Yankees fans here. You know, like, that's big for our business. All the museums - we have the Dali museum is here, the MFA, the Holocaust Museum. We have so many museums in St. Petersburg specifically...The fact that we have all these restaurants around us too. People that are in town and maybe on vacation, they want to try a Cuban [sandwich] across the street or find tacos places, they're right next door to us. I mean, all those elements are...the foot traffic that we get from it. Otherwise, I don't think we would ever be able to sustain what we have been able to without tourism at all. Not as many people live here, you know?

DH 17:27

And this was, maybe not as important a question, but how do you feel about or what's your opinion on preserving the shelf life of beers? what would be the ideal shelf life?

KJ 17:41

I think it's very important. I think I think more people need to pay attention to it. And I wish there were more affordable ways for smaller breweries to be able to adhere to those guidelines. But we do, we've invested a lot in making sure that our beers are as fresh through channels as possible. The beer changes, it absolutely changes [over time]. So the beer that you make, sometimes those are the reviews, right? Somebody's like, 'Oh, this beer sucks.' And it's like, what was the date? I didn't make that - I made that beer a year ago. I've seen that; they check a beer in online [to a rating app], they're like, 'I don't know what happened. This brewery. This is terrible. This brew sucks or something'. And the beer's a year old; you should never have even consumed it. You should have dumped it out. It wasn't ever intended to be [consumed] past 60-90 days.

It depends on the beer, and it depends on how well you're packaging the beer. So generally speaking, IPAs we're like on a pretty strict 60-90 day sort of shelf life. We have the ability to be up to 90 days because our packaging; we've invested so much money in our packaging and such high quality to it. That we can add 30 days on top of 60, whereas most brewers aren't able to do that. There was a time where I would say you really want to drink our beers within four weeks because I noticed significant differences even at three weeks in package. So, yes, super important.

DH 18:58

Is pasteurization a part of your processor or no?

KJ 19:00

We don't pasteurize but our issues aren't microbial. So pasteurization is to solve microbial issues. Whereas, while we do test for microbes in our lab, we have a PCR machine so every single beer that goes to package we take a sample of it and we run it through PCR to make sure there's no diastaticus, which is a beer spoiler, protenus micin can be a beer spoiler, lactic acid producing bacterial cultures, make sure none of those are in there before we ever package it. We verify that those aren't there. Our biggest detriment to beer is oxygen. The more oxygen you have, the higher the DO levels, of dissolved oxygen levels, the faster your beer is going to degrade in package. There was a time where a week, two weeks in the beer would virtually change color - it was affected by oxygen so negatively. That's the biggest detriment. We don't use pasteurization. But we have a lot of low oxygen methods that we use and we test for throughout the entire process, including a canning line that has very, very, very low pick up on dissolved oxygen, which is actually where the majority of breweries get massive pickups. The beer's delicious up to the moment they put into a can or bottle or something. And then they destroy it because there's an oxygen influx and that can ruin the beer.

DH 20:19

So would you say like, at least for brewers of your size, is having your own laboratory normal?

KJ 20:25

No, there are hardly any breweries my size that have a lab. There's definitely no breweries my size in the world that have a canning line as good as ours. We're the smallest brewery in the world that that company has ever sold the line to. And they're one of the top two canning line

companies in the world. It's from Italy. So yeah, that's - it's unheard of to have anybody focused on quality and invest this much in quality at our size.

DH 20:57

Can we talk about like the creative process for when you know you want to start a new beer?

Where do you go from there?

KJ 21:02

Mostly just I start with what I want to drink. You know, majority of it is like, what's the weather going to be like? What am I eating? Where'd I visit recently? What inspiration comes from anything? But usually it's like, "you know what I want to drink right now?" Like, that's usually how it starts. And then I build the beer that I want to drink from the ground up, because I want to drink it.

DH 21:23

I really like that you guys put a lot of thought into the name behind Green Bench. I thought that was really cool. When you name a beer do some of them have a little more deeper meanings or how do you choose names for your beers?

KJ 21:37

It completely depends. Again, as I said earlier, it's kind of hard to find names these days. But we do our best to try to reference a lot of St. Petersburg history so we can continue talking about it. Sometimes it doesn't work out. I guess to bridge two of those questions together: for example, we have a double IPA that's out now called Skyway. It's a double IPA, obviously named after the Skyway Bridge. Before I named it Skyway, I really wanted to call it Deuces Double IPA. The

reason I want to call it Deuces is because there's a neighborhood in town, the Deuces neighborhood off 22nd Avenue, that is on the south side that was a very influential strip in sort of the African American community here in St. Petersburg. At one point we had, I believe the number was there were more African American owned businesses there than anywhere in the south, years and years ago. But I couldn't call it that because there's a brewery in New Jersey that has a beer called Deuces Double IPA, and I reached out to him and asked if I could use it, that I won't distribute up there, blah, blah. They said no, we don't want you to, so they wouldn't let me. You do your best to try to create some elements and create some awareness and use the names that make the most sense for the consumer to be able, to I don't know, I guess engage with, especially, our community, our local community, but it doesn't always work out that way. Sunshine City IPA, our best seller, St. Petersburg is the sunshine city. Postcard Pills[ner]. St. Pete was known for postcards years ago. There was a very, very popular [postcard] book because there was so much tourism. And they had all these local artists create these postcards. We have all these famous postcards, you can find St. Petersburg postcard books where they have all these postcards on them and stuff. There's an inn on the beaches, popular, called Postcard Inn, so that's all references to St.Pete that we try to do.

DH 23:25

Maybe when they open the library back up I can see if we have those in the special archives because that would be kind of cool to see. And so I guess as my last question and easy one to sum it all up. What do you think is - what drives -Okay, two part question. What do you think drives craft consumers to continue choosing craft? And then what do you think drives new consumers to try it?

KJ 23:46

Man, that's a really good question. You know, that's the question that I also try to answer all the time. As a business owner yeah, you do your best to try to answer those. So what, I guess we'll start the other way, I'm going to start with what maybe gets people into craft beer.

I think generally speaking, it's like an, for at least most people, I think it's an exploration of flavor. And, or an exploration of... I guess I may have to qualify this little bit, but I was gonna say culture. And the ability to get out of your comfort zone and try something new in the world, I think is why a lot of people try different foods, why a lot of people travel. They'll try different cocktails or drinks, or wine, or beer. The idea is to try something that you've not been exposed to, to see if there's something else out there. I think most of it is that. I do think there are some consumers that just get into it because their buddies are into it, and it's a fad and they want to be cool and they want to get their Untapped account and post that they have the haziest, murkiest vanilla chocolate IPA they can find.

I think what keeps people in it is it's hard to go back once, you once you know that there's a bigger world. It's like moving out of your parents' house for the first time. So sure, it might be hard and you miss your parents, and then you realize this freedom is rad. There's a lot more out here. I definitely don't want to move back in with my parents. It's hard to go back. It doesn't mean you don't go back for dinners and hang out and you know, do your laundry if you don't have a laundry machine or whatever at your place. But it's not to say you can't go back and drink a Miller Highlife or a PBR at a bar someday or at a venue or on the beach, or whatever. But you're going to continue to want to explore and continue to want to try things because you know, there are more, there's more out there than, than just the normal shit.

DH 25:49

Well thank you for your time, I really appreciate it.

KJ 25:50

You're welcome.

Appendix F

Tables from Quantitative Measures

Table 1

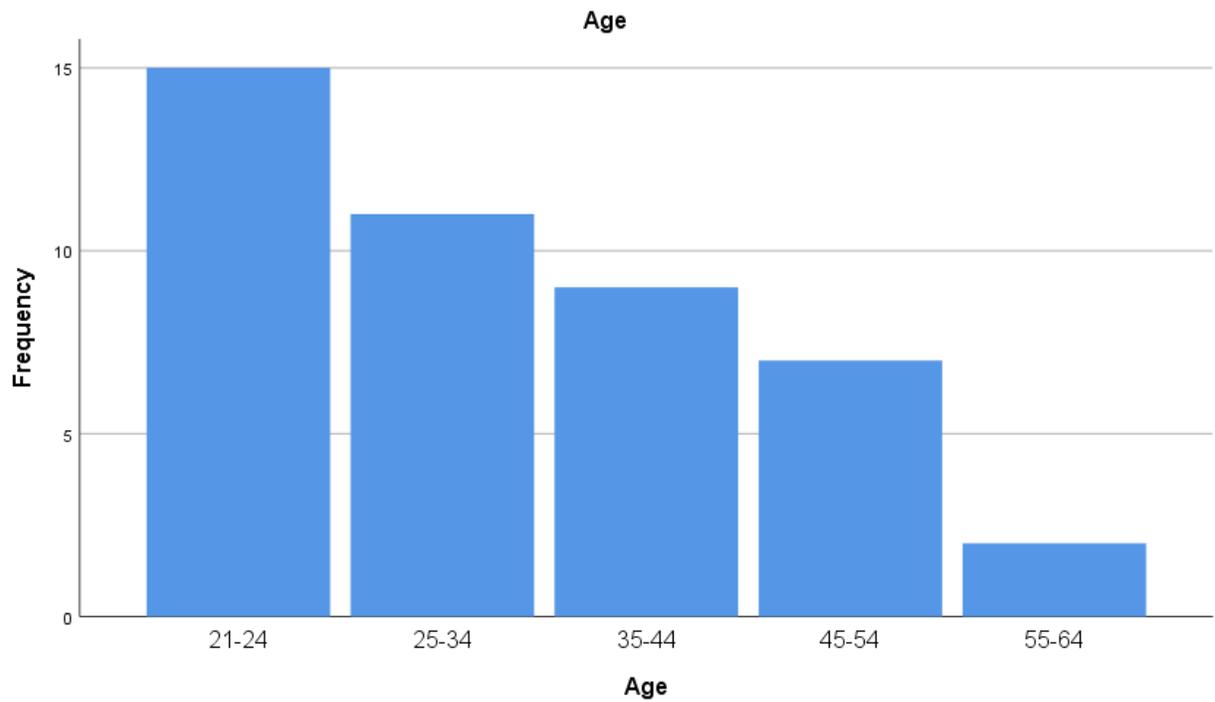


Table 2

Age Frequencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-24	15	34.1	34.1	34.1
	25-34	11	25.0	25.0	59.1
	35-44	9	20.5	20.5	79.5
	45-54	7	15.9	15.9	95.5
	55-64	2	4.5	4.5	100.0
Total		44	100.0	100.0	

Table 3

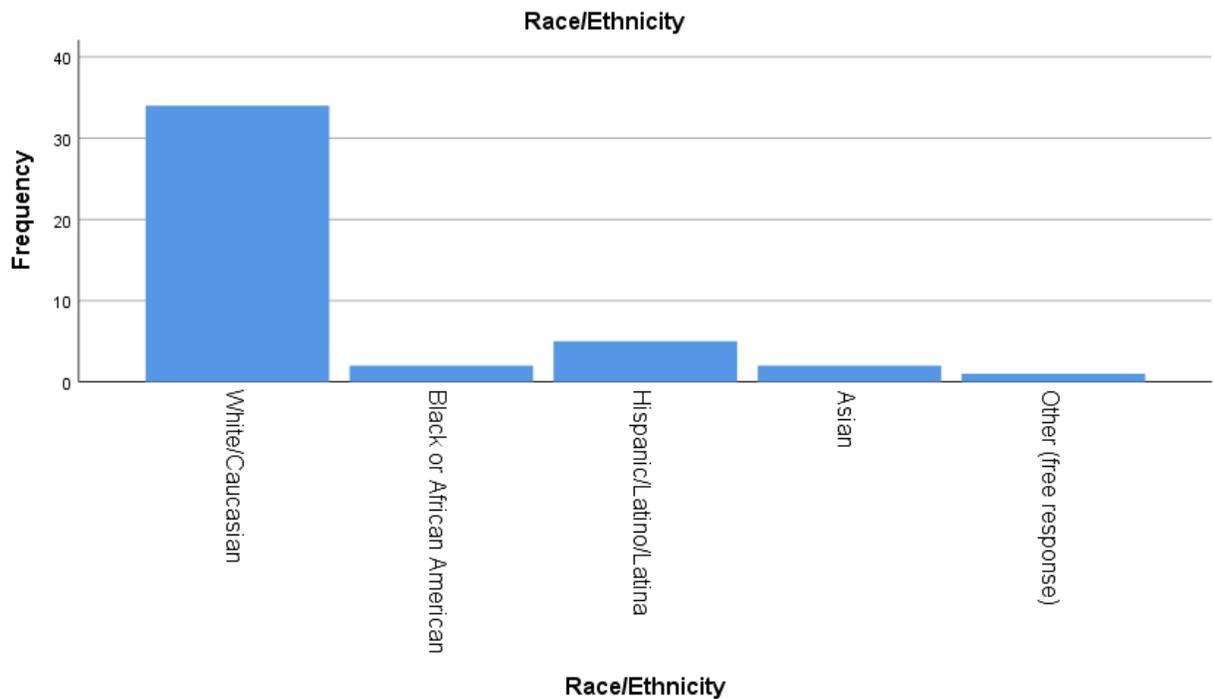


Table 4

Race/Ethnicity Frequencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	34	77.3	77.3	77.3
	Black or African American	2	4.5	4.5	81.8
	Hispanic/Latino/Latina	5	11.4	11.4	93.2
	Asian	2	4.5	4.5	97.7
	Other (free response)	1	2.3	2.3	100.0
	Total	44	100.0	100.0	

Table 5

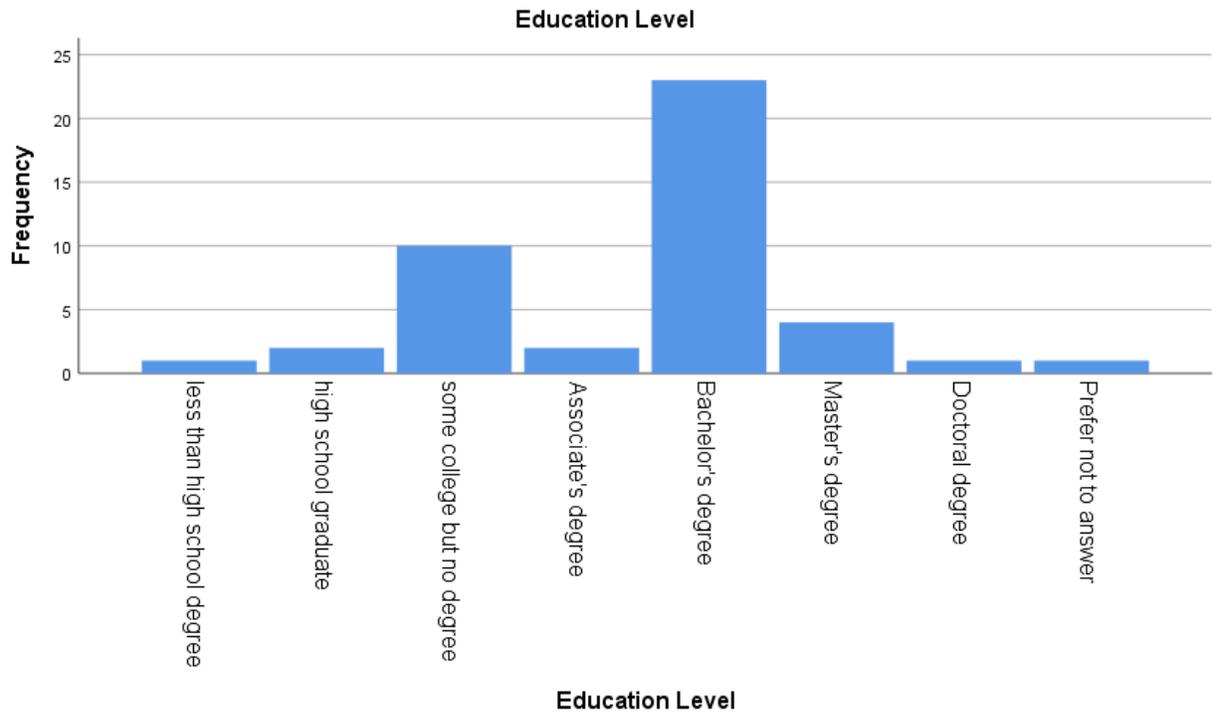


Table 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than high school degree	1	2.3	2.3	2.3
	high school graduate	2	4.5	4.5	6.8
	some college but no degree	10	22.7	22.7	29.5
	Associate's degree	2	4.5	4.5	34.1
	Bachelor's degree	23	52.3	52.3	86.4
	Master's degree	4	9.1	9.1	95.5
	Doctoral degree	1	2.3	2.3	97.7
	Prefer not to answer	1	2.3	2.3	100.0
Total		44	100.0	100.0	

Table 7

Chi-Square Test Statistics

	Gender
Chi-Square	3.857 ^a
df	1
Asymp. Sig.	.050

0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.5.

Table 8

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% CI of the Difference	
									Lower	Upper
Stout	Equal variances assumed	1.908	.175	.678	38	.502	.058	.085	-.115	.230
	Equal variances not assumed			.666	31.635	.510	.058	.087	-.119	.234
Porter	Equal variances assumed	15.214	.000	-1.748	38	.089	-.228	.131	-.492	.036
	Equal variances not assumed			-1.784	34.717	.083	-.228	.128	-.488	.032
Pale Ale	Equal variances assumed	1.028	.317	-.500	38	.620	-.043	.085	-.215	.130
	Equal variances not assumed			-.506	36.994	.616	-.043	.084	-.213	.128
Wheat Beer	Equal variances assumed	144.400	.000	-3.004	38	.005	-.333	.111	-.558	-.109
	Equal variances not assumed			-3.162	20.000	.005	-.333	.105	-.553	-.113
Pilsner	Equal variances assumed	8.255	.007	-1.312	38	.197	-.138	.105	-.351	.075
	Equal variances not assumed			-1.347	32.318	.188	-.138	.102	-.346	.071
Bock	Equal variances assumed	2.406	.129	-2.358	38	.024	-.356	.151	-.661	-.050
	Equal variances not assumed			-2.369	37.998	.023	-.356	.150	-.660	-.052
Sour	Equal variances assumed	5.488	.024	-1.165	38	.251	-.170	.146	-.467	.126
	Equal variances not assumed			-1.175	37.819	.247	-.170	.145	-.464	.123
Hybrid	Equal variances assumed	.382	.540	-.342	38	.734	-.055	.161	-.382	.272
	Equal variances not assumed			-.342	37.668	.734	-.055	.161	-.382	.271

Table 9

Significant Independent Sample T-Tests

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Wheat Beer (t(38)=-3.004, p=.005)	Male	19	1.00	.000	.000
	Female	21	1.33	.483	.105
Bock (t(38)=-2.358, p=.024)	Male	19	1.26	.452	.104
	Female	21	1.62	.498	.109

Table 10

		Beer Drinking Frequency	Likelihood to travel an hour for new beer
Beer Drinking Frequency	Pearson Correlation	1	-.405**
	Sig. (2-tailed)		.006
	N	44	44
Likelihood to travel an hour for new beer	Pearson Correlation	-.405**	1
	Sig. (2-tailed)	.006	
	N	44	44

** . Correlation is significant at the 0.01 level (2-tailed).

Table 11

		Beer Drinking Frequency	Importance of Variety of Food Selection
Beer Drinking Frequency	Pearson Correlation	1	.354*
	Sig. (2-tailed)		.018
	N	44	44
Importance of Variety of Food Selection	Pearson Correlation	.354*	1
	Sig. (2-tailed)	.018	
	N	44	44

*. Correlation is significant at the 0.05 level (2-tailed).

Table 12

		Beer Drinking Frequency	Importance of Variety of Beer
Beer Drinking Frequency	Pearson Correlation	1	-.395**
	Sig. (2-tailed)		.008
	N	44	44
Importance of Variety of Beer	Pearson Correlation	-.395**	1
	Sig. (2-tailed)	.008	
	N	44	44

** . Correlation is significant at the 0.01 level (2-tailed).

Table 13

		Preference to drink out	Importance of Variety of Beer
Preference to drink out	Pearson Correlation	1	.379*
	Sig. (2-tailed)		.011
	N	44	44
Importance of Variety of Beer	Pearson Correlation	.379*	1
	Sig. (2-tailed)	.011	
	N	44	44

*. Correlation is significant at the 0.05 level (2-tailed).

Table 14

		Preference to drink out	Preference to drink socially
Preference to drink out	Pearson Correlation	1	.676**
	Sig. (2-tailed)		.000
	N	44	44
Preference to drink socially	Pearson Correlation	.676**	1
	Sig. (2-tailed)	.000	
	N	44	44

** . Correlation is significant at the 0.01 level (2-tailed).

Table 15

		Preference to drink out	Importance of Variety of Food Selection
Preference to drink out	Pearson Correlation	1	-.341*
	Sig. (2-tailed)		.024
	N	44	44
Importance of Variety of Food Selection	Pearson Correlation	-.341*	1
	Sig. (2-tailed)	.024	
	N	44	44

*. Correlation is significant at the 0.05 level (2-tailed).

Table 16

		Preference to drink at home	Preference to drink alone
Preference to drink at home	Pearson Correlation	1	.366*
	Sig. (2-tailed)		.015
	N	44	44
Preference to drink alone	Pearson Correlation	.366*	1
	Sig. (2-tailed)	.015	
	N	44	44

*. Correlation is significant at the 0.05 level (2-tailed).