

## Article

# Cash Rules Everything around Me: Investigating Craft Beer Drinkers Purchase Decisions during Inflationary Period

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**Abstract:** Since March 2020, there have been multiple outside influences negatively impacting the U.S. craft beer industry from COVID-19 to inflation all leading up to increased prices for consumers. However, to date, research has not investigated consumer sentiment toward increased prices and their willingness to continue paying increased prices for beer from various outlets. The current study provides an initial assessment of craft beer consumers' purchase behaviors for on(own)- and off-premise consumption given the impacts of COVID-19 and the recent economic situation. Past research has indicated that increased prices tend to lead to decreased purchases of beer (and alcohol in general). Results of the current online survey of craft beer drinkers mostly align with past findings, as nearly half of the 350 participants in this study indicated that they had decreased their consumption of craft beer away from home. Relatedly, respondents indicated a relatively low willingness to pay price increases for craft beer consumed on-premise (own-premise) or off-premise.

**Keywords:** craft beer; inflation; consumer behavior; willingness to pay



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## 1. Introduction

Wu-Tang might have been referring to the struggle of making enough money to deal with life's many expenses; however, nearly 30 years later many Americans found themselves struggling to pay for nearly everything as inflation skyrocketed. As of August 2022, it was expected that household expenditures—this includes housing, food, entertainment, clothing, transportation, etc.—would average USD 72,900 or roughly USD 11,500 more than in 2020 [1]. If a household included beer drinkers and particularly craft beer drinkers, that number may have been even higher as inflation hit all areas of the beer industry from commodity crops to packaging, shipping, and subsequently retail prices [2]. Analysts indicated that beer prices started to increase early in 2022 and continued to rise simultaneously with prices of beer ingredients and packages through the end of the year [2]. However, these price increases did not occur across the board as many craft brewers absorbed higher production costs for most of the year without raising prices for consumers. On the flip side, macro brewers and some larger craft brands were over-inflating prices [2–4]. Perplexingly, even as craft brewers were not raising prices, sales of craft began to slip in 2022 both on-premise and off-premise [3], when two years prior amid the COVID-19 pandemic off-premise sales of craft were up 23% [5]—on-premise sales struggled due to restrictions for in-person service.

If the last few years have taught us anything, it is that beer sales (and alcohol sales in general) are confusing, to say the least. Numerous academic studies have suggested that increased prices and taxation of alcoholic beverages lead to a decrease in consumption and purchasing behaviors [6–9]. However, there are also numerous industry reports indicating that as beer prices in general have increased steadily since 2008 sales have not decreased equivalently [2,10–13]. Relatedly, there are academic and industry articles that suggest

craft beer drinkers tend to have a higher median income and are less price sensitive than non-craft beer drinkers [5,14]. Furthermore, there are industry reports and academic articles that suggest at the height of COVID-19 some consumers engaged in ‘premiumization’, the selective up-trading to higher priced craft beers in smaller quantities [5], while others decided to purchase larger quantities of cheaper beers [15]. Looking more closely at the discrepancies in both academic and industry literature surrounding the impact of increased prices on purchase behavior, a few key things stand out that add some level of clarity. First, many of the articles that look at price increases and taxation look at short-term impacts, relatedly we’ve seen excise taxes decrease in recent years [13]. Secondly, research has indicated that beer prices are potentially influenced by consumer ratings [8] and craft beer drinkers have been found to be curious drinkers with a higher income level [14]. Another area of sales that saw a massive increase during the pandemic was online ordering and delivery of beer through third-party applications such as Drizly which experienced a 300% increase in sales in early 2020 [16]. As such, the current study seeks to assess the following research questions.

#### *Research Questions*

RQ1: Have craft beer drinkers decreased their on-premise consumption in lieu of inflation and rising costs?

RQ2: How much more are craft beer drinkers willing to pay on-premise if prices remain higher?

RQ3: How much more are craft beer drinkers willing to pay for off-premise if prices remain higher?

RQ4: To what extent have craft beer drinkers utilized third-party delivery and how much more are they willing to pay for third-party delivery of beer?

## **2. Literature Review**

The craft beer industry has been the focus of numerous studies to date (see: [17,18]); however, there is a paucity of research assessing the impact of COVID-19 and the inflationary period that immediately followed. Before discussing the impacts of the global pandemic and the subsequent national economic phenomena on the craft beer industry, it is important to first outline the various ways breweries can get their products to consumers. Likewise, it is equally important to outline previous research on the impacts of price increases on overall alcohol consumption. Thus, the first two sections of the literature review will outline these key aspects. The third section will outline specific impacts that the pandemic and inflationary period had on the industry.

### *2.1. On-Premise (Own-Premise) vs. Off-Premise—Sales & Drinking*

There have historically been two different avenues for beer sales: on-premise and off-premise. On-premise sales refer to those sales made to consumers who are drinking beer at a restaurant or bar. Whereas, off-premise sales refer to those sales made to consumers who will drink the beer at home or elsewhere. However, there is a third avenue that has grown in popularity with the growth of the craft beer industry—‘own-premise’. Own-premise sales are a secondary form of on-premise sales and where a brewery or brewpub is selling directly to consumers on-site in their taproom or restaurant [19]. Industry reports indicate that off-premise sales make up the highest percentage (65%) of total sales for craft beer followed by on-premise (25.6%) and own-premise (9.4%) [17,18,20].

Although off-premise and on-premise sales combine for more than 90% of total sales for craft brewers, success is not guaranteed when relying on distributors to get products to market, especially for smaller brewers [21]. Own-premise sales on the other hand allow brewers to sell their beer directly to consumers at retail prices, which can equate to over a 300% profit margin when compared to traditional distribution methods [22]. Past research has also indicated that craft beer drinkers are willing to pay higher prices for beer at a taproom versus at a restaurant or bar [14]. However, in 2020, many small craft

breweries suffered significant losses due to the inability to serve guests directly in their taprooms (i.e., own-premise), as well as the loss of on-premise sales at restaurants and bars. Relatedly, smaller brewers who did not have strong off-premise distribution suffered from the inability to reach consumers in the same ways that larger brewers could [23,24]. Further discussion of the impacts that the COVID-19 pandemic had on the craft beer industry will be outlined below.

### *2.2. Impacts of Increased Prices on Alcohol Consumption*

One of the fundamental laws of economics—the downward-sloping demand curve—states that as price increases demand decreases [7]. This is a law that has been tested time and again with myriad products, not the least of which is alcoholic beverages, and historically studies have found that as prices of alcohol increase the overall consumption decreases [7–9,25]. However, past studies on craft beer consumers have suggested they tend to be less price sensitive as they generally have a higher level of income [14,26–28].

Noting the historic behaviors of craft beer consumers and their general willingness to pay higher prices for craft beer, industry professionals did not seem to be too concerned with the potential impending recession going into 2021–2022 [5]. However, that sentiment shifted in mid-2022 as craft brewers were hesitant to raise their prices even as their costs increased, and big brewers were already raising prices [3]. In follow-up reporting it was noted that craft beer consumers were becoming more paradoxically price sensitive [2]. Some craft beer consumers began to decrease their overall purchases and focused on buying smaller quantities of higher-priced craft beers, while others started to buy cheaper craft beers with higher alcohol content, yet few of them traded in their craft beers for more traditional American macro-lagers. Though craft beer consumer behaviors became hard to predict in 2022, by the end of the year most breweries had increased prices in an effort to keep up with the increased costs of production. The increased costs that brewers experienced stemmed directly from the effects of COVID-19 and the subsequent inflationary period which will be further detailed in the following section.

### *2.3. From Pandemic Times to Inflationary Times*

The COVID-19 pandemic has had a complex impact on the craft beer industry in the United States, especially as the industry was already experiencing slowed sales and growth before the pandemic started [29,30]. When taprooms, breweries, restaurants, and bars were forced to close brewers had to shift sales tactics and find new ways to get their products to consumers. Smaller breweries felt the negative impacts the most with sales numbers declining by 7–8% in 2020 and upwards of 30% declines in sales for the smallest breweries [30]. Many craft brewers had to shift to canning or bottling their beer to sell to-go, but the pandemic also led to an aluminum can shortage which caused further headaches [29,31]. Though some craft brewers were able to maintain a good portion of their off-premise sales via grocery stores, liquor stores, etc., many small breweries that were not already in the distribution space or who had weak support from their distributors struggled even more [31].

Even for those who were able to sell off-premise, the overall retail sales for the industry dropped from USD 29.3 billion in 2019 to USD 22.2 billion in 2020 [32]. This drop in sales equated to over a 2% total drop in craft's share in the retail beer market from 2019 to 2020 [32] and led to a loss of more than 568,000 jobs due to the pandemic in 2020 [33]. However, even as craft brewers faced numerous challenges, they continued to innovate to adapt to inflation and increased costs of production. Additional focuses on local sourcing for ingredients, cutting back production levels, and experimenting with different techniques and ingredients [34] all helped to keep price increases moderate. The following section outlines the methodology utilized in the current study to assess consumer perceptions of increased prices within the craft beer market.

### 3. Materials and Methods

An online survey was developed to assess craft beer drinkers' purchase decisions and future purchase intentions amid rising prices and inflation in the U.S. The survey was designed utilizing Qualtrics and disseminated via Prolific, respondents were paid USD 1.00 for their time. All responses were collected in the Fall of 2022. Initially, 423 participants engaged with the survey; however, after removing incomplete responses as well as those who indicated they never drink craft beer outside of their homes, a total of 350 usable surveys were maintained for data analysis. All statistical analyses were conducted utilizing IBM SPSS 29.

The survey instrument consisted of general questions regarding overall craft beer consumption, along with specific questions relating to purchase behavior in lieu of increased prices/inflation, questions about where respondents most frequently drink craft beer, questions regarding willingness to spend, and general demographic items. See Appendix A for the full survey. The survey included two screening questions, ensuring respondents were aged 21+ and self-identified as a craft beer drinker.

### 4. Results

Demographic information provided by participants indicated that a majority were Male (61.1%), were between the ages of 26–40 (56.8%), and earned less than USD 80,000 (64.6%). Nearly half of respondents (43.7%) indicated they drink craft beer away from home a few times a month, over half (52.6%) indicated they drink 2 beers on average, and the majority (84.0%) indicated they spend between USD 5–8 per beer when drinking craft beer away from home. Brewery taprooms (42.0%) and restaurants (29.7%) were the two most common places where respondents drink craft beer away from home. Table 1 below provides additional demographic and psychographic information.

**Table 1.** Respondent demographic and psychographic profile.

Characteristic		<i>n</i>	%
Gender			
	Male	214	61.1
	Female	133	38.0
	Non-binary/Third Gender	3	0.9
Age			
	21–25	23	6.6
	26–30	61	17.4
	31–35	74	21.1
	36–40	60	18.3
	41–45	44	12.6
	46–50	30	8.6
	51–55	20	5.7
	56–60	9	2.6
	Over 60	25	7.1
Income			
	Less than USD 30,000	59	16.9
	USD 30,000–49,999	64	18.3
	USD 50,000–79,999	101	28.9
	USD 80,000–99,999	43	12.3
	More than USD 100,000	80	22.9
	Prefer not to say	3	0.9

Table 1. Cont.

Characteristic	<i>n</i>	%
Drink non-craft beer		
Less than once a month	92	26.3
Once a month	51	14.6
Multiple times monthly	112	32.0
Once a week	45	12.9
Multiple times a week	46	13.1
Daily	4	1.1
Drink craft beer away from home		
Once a month	119	34.0
Multiple times monthly	153	43.7
Once a week	53	15.1
Multiple times a week	23	6.6
Daily	2	0.6
Location most frequently visited		
Brewery Taproom	147	42.0
Bar/Bottle Shop	35	10.0
Brewpub	57	16.3
Restaurant	104	29.7
Other	7	2.0
Typical beer consumption		
1	48	13.7
2	184	52.6
3	88	25.1
4	21	6.0
5+	9	2.6
Typical spend per beer		
Less than USD 5	18	5.1
USD 5–6	132	37.7
USD 7–8	162	46.3
USD 9–10	26	7.4
USD 10+	12	3.4
Drink craft beer at home		
Less than once a month	42	12.0
Once a month	26	7.4
Multiple times monthly	120	34.4
Once a week	67	19.1
Multiple times a week	85	24.3
Daily	9	2.6
Purchase for at home		
Brewery Taproom	35	10.0
Bottle Shop	8	2.3
Brewpub	5	1.4
Grocery Store	151	43.1
Liquor Store	137	39.1
Convenience Store	9	2.6
Other	5	1.4
Frequency of purchases for at home		
Less than once a month	54	15.4
Once a month	81	23.1
Multiple times monthly	133	38.0
Once a week	61	17.4
Multiple times a week	20	5.7
Daily	1	.3

Table 1. Cont.

Characteristic	<i>n</i>	%
Typical spend for at home		
Less than USD 10	23	6.6
USD 10–15	143	40.9
USD 15–20	105	30.0
More than USD20	79	22.6

In order to answer RQ1, respondents were asked directly if they have decreased how often they drink craft beer at a location other than home as prices and inflation increased. Results indicated that respondents were nearly evenly split down the middle with 165 respondents (47.1%) indicating that they had decreased their craft beer consumption away from home and 185 respondents (52.9%) indicating that they had not decreased their craft beer consumption away from home. To provide further context as to the potential differences between these two groups, multiple independent samples *t*-tests were run comparing results to responses for additional beer consumption questions as well as to assess potential differences in the age and income levels of the two groups.

The first independent samples *t*-test was run to determine if there were differences in age between the two groups. The group that indicated that they had decreased their consumption of craft beer away from home were younger than those who had not, a statistically significant difference,  $M = -0.577$ , 95% CI  $[-1.028, -0.125]$ ,  $t(348) = -2.512$ ,  $p = 0.012$ ,  $d = -0.269$ . The second independent samples *t*-test was run to determine if there were differences in income between the two groups. Results indicated that the group that decreased consumption earned less than those who had not, a statistically significant difference,  $M = -0.346$ , 95% CI  $[-0.636, -0.055]$ ,  $t(345) = -2.338$ ,  $p = 0.02$ ,  $d = -0.251$ . In order to further explore these differences, respondents were grouped based on age and income, and additional analyses were run. Utilizing the results from the demographic profile respondents were first split into two age groups: 35 and under (45.1%) and 36 and over (54.9%), and three income groups: USD 49,999 or less (35.2%), USD 50,000–79,999 (28.9%), and USD 80,000 or more (35.2%). These groups were then utilized to run a two-step cluster analysis which resulted in a six-cluster solution, results are shown in Table 2 below. Utilizing the resultant six groups a chi-square test was run to determine if there were significant differences between any of the groups regarding changes in their craft beer consumption due to inflation. Results of the chi-square test indicated that there were no significant differences between groups,  $\chi^2(5, n = 347) = 7.91$ ,  $p = 0.161$ .

Table 2. Cluster analysis—age and income.

	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Cluster 5		Cluster 6	
	<i>n</i>	%										
Size	45	13.0	64	18.4	86	24.8	56	16.1	59	17.0	37	10.7
Inputs												
Income	USD		USD 49,999 or		USD 80,000 or		USD		USD 49,999 or		USD 80,000 or	
	50,000–79,999		Less		More		50,000–79,999		Less		More	
Age	36+		21–35		36+		21–35		36+		21–35	

To assess RQ2 and RQ3, descriptive statistics (i.e., mean and frequency scores) were run to determine respondents' willingness to pay increased prices for own-, on-, and off-premise purchases of craft beer. Results indicated that for own- and on-premise purchases (RQ2), most respondents were generally willing to pay between \$0.25–\$0.75 more per beer at the different locations. Regarding off-premise purchases (RQ3), results indicated that most respondents were generally willing to pay USD 0.50–2.00 more per six-pack from the different locations. Tables 3 and 4 below provide a detailed depiction of the frequencies of respondents' willingness to pay increased prices for craft beer.

**Table 3.** WTP for own- and on-premise craft beer purchases.

WTP	Taproom ( $M = 3.37$ , $SD = 1.44$ )	Brewpub ( $M = 3.26$ , $SD = 1.43$ )	Bar/Bottle Shop ( $M = 3.07$ , $SD = 1.47$ )	Restaurant ( $M = 3.27$ , $SD = 1.45$ )
USD 0.00–0.25 more	39	40	44	40
USD 0.25–0.50 more	74	79	110	83
USD 0.50–0.75 more	61	76	63	71
USD 0.75–1.00 more	94	81	68	81
More than USD 1.00 more	56	47	35	46
Would not pay more	25	25	28	28

**Table 4.** WTP for off-premise 6-pack craft beer purchases.

WTP	From Taproom ( $M = 3.23$ , $SD = 2.08$ )	From Brewpub ( $M = 3.11$ , $SD = 2.02$ )	From Bottle Shop ( $M = 3.12$ , $SD = 2.08$ )	From Grocery Store ( $M = 2.94$ , $SD = 2.20$ )	From Liquor Store ( $M = 3.05$ , $SD = 2.18$ )	From Convenience Store ( $M = 3.16$ , $SD = 2.40$ )
USD 0.00–0.50 more	56	61	65	92	79	94
USD 0.50–1.00 more	101	103	101	109	107	92
USD 1.00–2.00 more	86	89	91	66	75	71
USD 2.00–3.00 more	46	44	37	25	30	23
USD 3.00–4.00 more	10	7	8	6	8	6
USD 4.00–5.00 more	4	3	3	4	3	4
More than USD 5.00 more	4	3	3	2	2	1
Would not pay more	40	37	40	43	44	57

To determine potential differences between those respondents who indicated that they had decreased their consumption away from home and those who indicated that they had not regarding their WTP, multiple independent samples t-tests were run. Results indicated that there were significant differences between the two groups in their willingness to pay for own-premise purchases at a brewery taproom and at a brewpub, but there were no significant differences in WTP for on-premise purchases at a bar/bottle shop or at a restaurant. More specifically, those individuals who indicated that they had decreased their consumption of craft beer away from home were statistically significantly less willing to spend more for craft beer consumed at a brewery taproom ( $M = 3.20$ ,  $SD = 1.50$ ) or at a brewpub ( $M = 3.09$ ,  $SD = 1.48$ ) than those who had not decreased their consumption ( $M = 3.52$ ,  $SD = 1.38$ ;  $M = 3.42$ ,  $SD = 1.37$ ).

Similarly, there were significant differences between the two groups regarding their WTP for off-premise purchases at a grocery store as well as at a beer/wine/liquor store but there were no significant differences in WTP for off-premise purchases at a brewery taproom, a bottle shop, a brewpub, or a gas station/convenience store. Once again, individuals who indicated that they had decreased their consumption of craft beer away from home were statistically significantly less willing to spend more for craft beer purchased at a grocery store ( $M = 2.65$ ,  $SD = 2.14$ ) or at a beer/wine/liquor store ( $M = 2.75$ ,  $SD = 2.13$ ) than those who had not decreased their consumption ( $M = 3.20$ ,  $SD = 2.21$ ;  $M = 3.33$ ,  $SD = 2.18$ ). To further assess the differences between respondents, multiple one-way ANOVA tests were run utilizing the six groups to test for significant differences in willingness to pay increased prices for own/on/off-premise purchases. Results of the various ANOVA tests indicated that there were significant differences between the groups for five of the purchase scenarios (i.e., purchases at a brewery taproom, purchases from a brewpub, purchases from a bottle shop, purchases from a grocery store, and purchases from a convenience store).

The first statistically significant difference between the six groups was found regarding their willingness to pay increased prices at a brewery taproom,  $F(5, 340) = 3.71, p = 0.003$ . Tukey post hoc analysis revealed that the mean differences between cluster 2 ( $M = 2.80, SD = 1.32$ ) and cluster 4 ( $M = 3.56, SD = 1.49$ ) ( $-0.767, 95\% CI [-1.51, -0.02]$ ), as well as cluster 2 ( $M = 2.80, SD = 1.32$ ) and cluster 6 ( $M = 3.92, SD = 1.46$ ) ( $-1.12, 95\% CI [-1.96, -0.28]$ ) were statistically significant but no other group differences were statistically significant. The second statistically significant difference between the six groups was found regarding their willingness to pay increased prices at a brewpub,  $F(5, 339) = 2.59, p = 0.026$ . Tukey post hoc analysis revealed that the mean differences between cluster 2 ( $M = 2.73, SD = 1.38$ ) and cluster 4 ( $M = 3.54, SD = 2.46$ ) ( $-0.803, 95\% CI [-1.55, -0.05]$ ), but no other group differences were statistically significant. The third statistically significant difference between the six groups was found regarding their willingness to pay increased prices for purchases from a bottle shop,  $F(5, 339) = 2.40, p = 0.037$ . Tukey post hoc analysis revealed that the mean differences between cluster 2 ( $M = 2.52, SD = 1.76$ ) and cluster 6 ( $M = 3.86, SD = 2.39$ ) ( $-1.35, 95\% CI [-2.57, -0.12]$ ), but no other group differences were statistically significant. The fourth statistically significant difference between the six groups was found regarding their willingness to pay increased prices for purchases from a grocery store,  $F(5, 338) = 2.32, p = 0.043$ . Tukey post hoc analysis revealed that the mean differences between cluster 2 ( $M = 2.29, SD = 1.89$ ) and cluster 6 ( $M = 3.67, SD = 2.50$ ) ( $-1.38, 95\% CI [-2.69, -0.08]$ ), but no other group differences were statistically significant. The final statistically significant difference between the six groups was found regarding their willingness to pay increased prices for purchases from a convenience store,  $F(5, 339) = 3.33, p = 0.006$ . Tukey post hoc analysis revealed that the mean differences between cluster 2 ( $M = 2.39, SD = 2.07$ ) and cluster 6 ( $M = 4.17, SD = 2.77$ ) ( $-1.78, 95\% CI [-3.34, -0.22]$ ), but no other group differences were statistically significant.

To determine the extent to which craft beer drinkers utilize third-party delivery for beer purchases and their willingness to spend on third-party delivery (RQ4), a series of seven questions were asked. The first question asked if respondents had ever used third-party delivery for craft beer purchases, to which only 39 respondents indicated that they had. From here those who indicated that they had were asked four follow-up questions, and those who indicated that they had not were asked two follow-up questions. Results for the non-users are presented first. For those who indicated that they had not used third-party delivery, they were first asked if they would be willing to do so for future purchases, 47.1% ( $n = 165$ ) said yes and 41.7% ( $n = 146$ ) said no. Non-users were then asked what keeps them from using third-party delivery services, they were provided with four response options (i.e., Not available/Not aware, Delivery fees/cost, Product Availability, Other—with an option to input text). Most respondents who provided an answer indicated that delivery fees/cost ( $n = 98$ ) was the main reason they did not use third-party delivery, 29 respondents indicated that the services were not available, or they were unaware of them, 2 indicated product availability, and 16 said 'other' (145 respondents did not provide a response to this question). Those respondents who selected other were able to provide further text input, and the results of these responses indicated two main reasons: a preference for browsing in person, or a preference to directly support the small business rather than third-party.

Respondents who indicated that they had previously utilized third-party delivery for craft beer purchases were asked the following questions: how frequently do you use third-party delivery; how much do you typically spend when using third-party delivery; have you increased your usage of third-party in response to increased inflation and gas prices; how satisfied are you with third-party delivery services. The results of each question are presented in Table 5 below.

**Table 5.** Third-party delivery use.

Question/Response	<i>n</i>
Frequency of third-party delivery use	
Less than once a month	31
Once a month	2
A few times a month	5
Once a week	1
Average spend with third-party delivery	
Less than USD 15	1
USD 15–20	4
USD 20–25	7
USD 25–30	8
USD 30–35	3
USD 35–40	5
More than USD 40	11
Increased use of third-party delivery	
Yes	5
No	33
Satisfaction with third-party delivery	
Very Dissatisfied	1
Dissatisfied	1
Somewhat Dissatisfied	3
Neither Satisfied nor Dissatisfied	5
Somewhat Satisfied	9
Satisfied	17
Very Satisfied	3

## 5. Discussion

Since March 2020, there have been multiple outside influences negatively impacting the U.S. craft beer industry from COVID-19 to inflation all leading up to increased prices for consumers. However, to date, research has not investigated consumer sentiment toward increased prices and their willingness to continue paying increased prices for beer from various outlets. The current study provides insight and implications into craft beer consumers' recent and potential future behaviors particularly as they relate to purchases of craft beer for consumption on(own)- and off-premise. The current study specifically focuses on those consumers who drink craft beer both away from their homes and at their homes.

### 5.1. Academic Implications

The current study provides an initial assessment of craft beer consumers' purchase behaviors given the impacts of COVID-19 and the recent economic situation. Past research has indicated that increased prices tend to lead to decreased purchases of beer (and alcohol in general). The results of the current study mostly align with past findings, as nearly half of the participants in this study indicated that they had decreased their consumption of craft beer away from home. Relatedly, respondents indicated a relatively low willingness to pay price increases for craft beer consumed on-premise (own-premise) or off-premise. This finding is in line with prior work that has found craft beer drinkers tend to be willing to pay slightly more for a beer at a taproom compared to at a restaurant or bar [14]. Interestingly, there were significant differences in WTP amongst the three different income groups of the younger respondents. More specifically, those respondents aged 21–35 who earned USD 49,999 or less indicated that they were not willing to pay as much for a beer at a brewery taproom as those aged 21–35 earning between USD 50,000–79,999 or those aged 21–35 earning USD 80,000 or more. Similarly, those aged 21–35 earning USD 49,999 or less were not willing to pay as much for a beer brewpub as those aged 21–35 earning between USD 50,000–79,999, nor were they willing to pay as much for a 6-pack of beer purchased from a

bottle shop, grocery store, or convenience store as those aged 21–35 earning USD 80,000 or more.

This study also pushes forward the general literature surrounding the craft beer industry and the various factors that influence consumer behavior. A recent publication provided a systematic literature review of craft beer publications prior to June 2021 and provided numerous areas for researchers to focus additional studies on [35]. This study hits on multiple clusters and specific opportunities outlined by previous research [35] and provides yet another building block for the growing body of work in this still-growing industry. There will continue to be outside forces, economically, socially, and politically that impact the prices consumers must pay to imbibe and future studies should continue to assess those influences.

The current study also presents an initial investigation into craft beer consumers' willingness to participate in the nascent third-party beer delivery industry. Although multiple states temporarily allowed for third-party delivery of beer and other alcoholic beverages during 2020–2021 due to COVID-19, many states rolled this back as the pandemic slowed. Some states have allowed for third-party alcohol delivery to continue, and others are still trying to figure out if their constituents want it to be legalized or not. As noted in previous research, with the continued growth of third-party delivery and as states continue to figure out new laws around at-home delivery of alcoholic beverages a new area of research will be necessary [17].

### 5.2. Practical Implications

In general, the current study provides a glimpse into the recent and potential future purchase behaviors of craft beer drinkers. More specifically, results indicated that there are clear differences between those who decreased their consumption of craft beer when away from home and those who did not. Likewise, results show there are significant differences in WTP amongst some groups.

This study goes on to stress the economic strain on consumers due to inflation, especially affecting craft beer drinkers who face rising prices across various sectors of the industry. The findings indicate that consumers are sensitive to price changes, which can impact their purchasing decisions. Further, it suggests nuanced consumer behavior within the craft beer market. Despite the general perception that craft beer consumers are less price-sensitive, the study reveals a paradoxical trend where some consumers decrease consumption away from home in response to price increases. This underscores the effect of factors such as inflation on consumption and demonstrates shifts in consumption behavior, including decreased on-premise consumption and increased scrutiny over price points both on-premise and off-premise. Furthermore, the significant differences in WTP that were found between the various income levels within the younger respondents provide craft brewers and sellers of craft beer additional insight into which groups' purchase behavior is most influenced by increased prices.

Despite this, craft brewers are seen as able to adapt to economic challenges by innovating production methods, sourcing local ingredients, and experimenting with pricing strategies to moderate price increases. This shows the industry's hardiness and capability to navigate economic downturns. Furthermore, this study underlines one simple fact that brewery operators know too well, sales in the taproom are extremely beneficial to the bottom line. These sales come with a much higher profit percentage [22] than outside sales, and respondents to this study indicated a willingness to pay even more for beers at taprooms than at other on-premise locations.

One of the primary opportunities that this study reveals is for third-party delivery services in the craft beer market. While consumer usage is currently low, there is a willingness among consumers to consider utilizing such services in the future, suggesting a potential avenue for market expansion. As there are still a number of laws in place keeping breweries from shipping their product directly to consumers, this is one avenue of potential sales that could further benefit brewers and the sellers of their products. This is still a

rather nascent industry so it is highly suggested that future research continue to assess how third-party delivery is utilized by consumers and producers/sellers of craft beer. One aspect in particular that will be important to investigate further is what type of consumer is more likely to utilize third-party delivery, as multiple respondents in the current study indicated a preference to peruse offerings within the brewery, bottle shop, etc. It is likely that the more involved craft beer consumer is less likely to use third-party delivery as they may be looking for new, different, or specific beers. Whereas a less involved craft beer drinker might be less discerning and just looking for a common beer or common style. Relatedly, investigating specific-use cases for third-party delivery compared to traditional off-premise purchases will help provide further information to brewers, retailers, and third-party delivery companies when planning future business decisions. Overall, the study sheds light on the relationship between economic factors, consumer behavior, and industry dynamics within the craft beer market during inflationary times.

## 6. Conclusions

As noted previously, the last few years have shown us that craft beer sales (and alcohol sales in general) are confusing, to say the least. Likewise, the results of the current study add a bit to that confusion as there are some differences between consumer groups regarding their recent purchase decisions and willingness to pay price increases for craft beer, particularly within the younger demographic based on income level. However, craft brewers and sellers of their products should find some solace given the fact that even as their costs have increased, consumers have generally shown a willingness to pay slightly more for products they enjoy. Although this study addresses an important issue facing the craft beer industry and the hospitality industry in general it is not without its limitations. As the current study utilized an online sample, it is not entirely generalizable to the whole craft beer consumer population. Relatedly, although this study only utilized responses from individuals who indicated that they drink craft beer outside of their home as well as inside of their home, it is possible that some craft beer drinkers were left out as some may choose to only drink craft beer at their home. After conducting statistical analyses and considering the academic and practical implications, it became apparent that some of the survey items were worded rather ambiguously (i.e., how much do you typically spend when using third-party delivery services for craft beer purchases) and as such, respondents' answers may not all reflect their behavior equally. Furthermore, as data collection took place in the early fall of 2022 it is possible that not all respondents had begun seeing price increases for their preferred craft beer, similarly this study did not consider if there were any other reasons why respondents had changed their craft beer consumption other than price increases. Future studies might consider further consumer segmentation to determine additional differences in consumption pattern changes. Likewise, studies that look at how craft beer drinkers modified their purchase behavior during the peak of COVID-19 and shortly thereafter could provide additional insight into what the industry might expect if another pandemic were to occur.

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## Appendix A

### Appendix A.1. Beer-Inflation Survey

1. Do you consider yourself a craft beer drinker?—If no end of survey
  - a. Yes
  - b. No
2. Are you over 21 years of age?—If no end of survey
  - a. Yes
  - b. No
3. How often do you drink Craft Beer at a location other than your home (i.e., Bar, Restaurant, Brewery Taproom, etc.)?
  - a. Never
  - b. Once a month
  - c. A few times a month
  - d. Once a week
  - e. Multiple times a week
  - f. Daily
4. Have you decreased how often you drink Craft Beer at a location other than your home as gas prices and inflation have increased?
  - a. Yes
  - b. No
5. What type of location do you visit most frequently to drink craft beer?
  - a. Brewery Taproom
  - b. Bar/Bottle Shop
  - c. Brewpub
  - d. Restaurant
  - e. Other: \_\_\_\_\_
6. Do you consider yourself a 'regular' at the location that you visit most frequently to drink craft beer?
  - a. Yes
  - b. No
7. How often do you visit the location that you most frequently drink craft beer at?
  - a. Never
  - b. Once a month
  - c. A few times a month
  - d. Once a week
  - e. Multiple times a week
  - f. Daily
8. Thinking of the location you visit most frequently to drink craft beer at, how many beers do you typically consume per visit?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5+
9. Thinking of the location you visit most frequently to drink craft beer at, how much do you typically spend Per Beer?
  - a. Less than \$5
  - b. \$5–6
  - c. \$7–8
  - d. \$9–10
  - e. \$10+
10. How often do you drink craft beer at home?

- 
- a. Never
  - b. Once a month
  - c. A few times a month
  - d. Once a week
  - e. Multiple times a week
  - f. Daily
11. Have you increased how often you drink craft beer at home as gas prices and inflation have increased?
- a. Yes
  - b. No
12. Where do you most frequently purchase craft beer to Drink at Home?
- a. Brewery Taproom
  - b. Bottle Shop
  - c. Brewpub
  - d. Grocery Store
  - e. Beer/Wine/Spirits (Liquor) Store
  - f. Gas Station/Convenience Store
  - g. Other: \_\_\_\_\_
13. How often do you purchase craft beer to Drink at Home?
- a. Never
  - b. Once a month
  - c. A few times a month
  - d. Once a week
  - e. Multiple times a week
  - f. Daily
14. How much do you typically spend when purchasing craft beer to Drink at Home?
- a. Less than \$10
  - b. \$10–15
  - c. \$15–20
  - d. More than \$20
15. Have you ever used a Third-Party Delivery Service for craft beer purchases?
- a. Yes
  - b. No
16. If No to 15—Would you be willing to use Third-Party Delivery Services for future craft beer purchases?
- a. Yes
  - b. No
17. If Yes to 15—How frequently do you use Third-Party Delivery Services for craft beer purchases?
- a. Never
  - b. Once a month
  - c. A few times a month
  - d. Once a week
  - e. Multiple times a week
  - f. Daily
18. If Yes to 15—How much do you typically spend when using Third-Party Delivery Services for craft beer purchases?
- a. Less than \$10
  - b. \$10–15
  - c. \$15–20
  - d. \$20–25
  - e. \$30–35
  - f. \$35–40
  - g. More than \$40

19. If Yes to 15—Have you **increased** your usage of Third-Party Delivery Services for craft beer purchases as gas prices and inflation have increased?
  - a. Yes
  - b. No
20. If Yes to 15—How satisfied are you with the Third-Party Delivery Service that you use for craft beer purchases?
  - a. Very Dissatisfied
  - b. Dissatisfied
  - c. Somewhat Dissatisfied
  - d. Neither Satisfied nor Dissatisfied
  - e. Somewhat Satisfied
  - f. Satisfied
  - g. Very Satisfied
21. If No to 16—What keeps you from using Third-Party Delivery Services for craft beer purchases?
  - a. Not available in my area/Not aware of them
  - b. Delivery Fees/Cost
  - c. Product Availability
  - d. Other: \_\_\_\_\_
22. The following section focuses on potential increased prices for beer and how much more you would be willing to spend to buy craft beer for consumption Away from Home.

Location	\$0.00–\$0.25 More per Beer	\$0.25–\$0.50 More per Beer	\$0.50–\$0.75 More per Beer	\$0.75–\$1.00 More per Beer	More than \$1.00 More per Beer	Would not be willing to pay more per beer
Brewery Taproom						
Bar/Bottle Shop						
Brewpub						
Restaurant						
Other: _____						

23. The following section focuses on potential increased prices for beer and how much more you would be willing to spend to buy craft beer for consumption At Home.

Location	\$0.00– \$0.50 More per 6-pack	\$0.50– \$1.00 More per 6-pack	\$1.00– \$2.00 More per 6-pack	\$2.00– \$3.00 More per 6-pack	\$3.00–\$4.00 More per 6-pack	\$4.00–\$5.00 More per 6-pack	More than \$5.00 More per 6-pack	Would not be willing to pay more per 6-pack
Brewery Taproom								
Bottle Shop								
Brewpub								
Grocery Store								
Beer/Wine/Spirits (Liquor) Store								
Gas Sta- tion/Convenience Store								
Other: _____								

24. If Yes to 15 & 16—How much more you would be willing to spend Per Order for Third-Party Delivery Services for craft beer purchases.
  - a. \$0.00–\$0.50 More per Order

- b. \$0.50–\$1.00 More per Order
- c. \$1.00–\$2.00 More per Order
- d. \$2.00–\$3.00 More per Order
- e. \$3.00–\$4.00 More per Order
- f. \$4.00–\$5.00 More per Order
- g. More than \$5.00 More per Order
- h. Would not be willing to pay More per Order

#### Appendix A.2. Demographics

##### 25. Gender

- a. Male
- b. Female
- c. Non-binary
- d. Prefer not to say

##### 26. Age

- a. 21–25
- b. 26–30
- c. 31–35
- d. 36–40
- e. 41–45
- f. 45–50
- g. 51–55
- h. 56–60
- i. Over 60

##### 27. Annual Personal Income

- a. Less than \$30,000
- b. \$30,000–\$49,999
- c. \$50,000–\$79,999
- d. \$80,000–\$99,999
- e. More than \$100,000

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