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HARD APPLE CIDER IN THE NEW YORK HUDSON VALLEY REGION: A TOURISM STUDY

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ABSTRACT: *Hard apple cider production is an emerging industry in apple-growing regions of the United States due to the growing popularity of local craft products in the alcoholic beverage industry. This study strives to understand how hard cideries may affect local product promotion, rural tourism, and agriculture's economic viability in the Hudson Valley region of New York. Tourism is evolving towards travelling for experiential value; the hard cider industry can offer an authentic environmentally and historically significant experience. By identifying the consumers and their expectations, the possibilities for building tourism specifically surrounding products with regional significance expand significantly. In this study, seven hard cider producers in the Hudson Valley region were visited, and three hundred five customer surveys administered and analyzed. Study results suggest the most important factors influencing hard cider tourism were to experience something new, to learn about local products, and to support small/local/artisan businesses. This research demonstrates the economic potential for cideries to build on the recent examples of wineries and breweries in developing agritourism experiences, and the need for governmental agencies to support and promote local agriculture in the face of development pressures and global competition.*

Keywords: *hard apple cider, cidery, tourism, Hudson Valley*

INTRODUCTION

The first English settlers began cultivating apple orchards early on in New England in the mid-1600s, after learning most of the indigenous apple trees produced inedible crabapples (LeHault, 2011). Unlike grain crops, apple trees grew well in New England, making apple cider the beverage of choice in colonial America. The New England area is estimated to have produced over 300,000 gallons of cider a year by the turn of the 18th century (LeHault, 2011). By the early 1900s, the popularity of cider began to decrease. With the expanding and diverse immigrant population, beer became the beverage of choice for new Americans. In addition to decreased demand, the hard cider industry was nearly wiped out with the enactment of Prohibition from 1920-1933. This Act changed the face of apple agriculture; in order to stay profitable, farmers switched their crop from the cider-producing bitter varieties to dessert varieties of apples. When the Prohibition Act was repealed in 1933, the alcoholic beverage industry moved into the forefront of agricultural production once more. However, the face of the beverage industry had changed; while barley and grain crops easily recovered with the ability to produce a harvest after one year of growth, the apple tree varieties needed a minimum of three years to begin fruiting. Many of the heirloom apple varieties originally brought from England vanished from the agricultural scene. In recovering from the Great Depression, farmers could not afford to take a three-year loss in hopes of rebuilding the hard cider industry. Cider became a lost taste for Americans, and cider production became a lost art in the United States.

Over 80 years later, the cider market is beginning to slowly rebuild (Becot et.al, 2016; Bernot & Fowel, 2016; Keri, 2015; LeHault, 2011). While mostly relying on dessert apple varieties, orchardists have increasingly been turning to hard cider avenue to add to the revenue of their farms. Experiential tourism and the burgeoning popularity of the craft/artisan food and beverage industry have offered a path for cideries to begin to enter the craft beverage market (Robinson & Novelli, 2005). Indigenous apple trees in the northeastern region of the United States make ideal stock for ciders, and with supportive legislation the region has seen some success in this arena. New York ranks fifth in the country with two hundred eight craft breweries, ranks fourth with over a $2.9 billion economic impact, and ranks seventh in craft beer volume production (Brewers Association, 2016). Cider utilizes dropped, blemished, imperfect fruits – nonalcoholic cider profit values roughly $9/bushel versus hard cider profit valuing about $135/bushel (Farm to Plate Strategic Plan, 2013). This missed market opportunity has been noticed by some and has begun to revitalize the hard apple cider industry. The Farm Cidery Law in New York State signed into effect on October 20, 2013 has given the state a significant boost in its cider market (New York Apple Association, 2016). The law has allowed the state's apple orchards to obtain licenses to produce and sell home-grown cider, as well as have on-premises tasting rooms and bars open to the public (New York Government Official Press, 2014). The President and CEO of the New

York Apple Association, Jim Allen, has commented on the significant beneficial changes this bill has made to the apple-growing industry stating that, "New opportunities for apples are opening up all over the state as a result of that legislation, including tourism, which is a major economic driver of the New York apple industry," (New York Government Official Press, 2014).

The Hudson Valley is known for having fertile land, beautiful landscapes, a plentiful water supply, and easy access to major cities from New Jersey to Canada. However, the Hudson Valley Agribusiness Development Corporation (HVADC) estimates the Hudson Valley has an unmet demand of $335 million worth of locally produced food and beverages (HVADC, 2015). With recent opportunities in New York state law changes, and growing demand for craft alcoholic beverages, the Hudson Valley has the opportunity to bridge the market gap by expanding production operations and diversifying products (HVADC, 2015). Hudson Valley orchards hold the potential to encourage the growth and popularity of craft beverages, hard cider, and rural tourism to improve the area's local agricultural economy.

LITERATURE REVIEW

Torres & Momson (2011), suggests that the change in consumption patterns, tastes and attitudes towards food, leisure, travel and place have led to new opportunities for rural products and created specialized niche markets for tourism. Many farms and ranches in the U.S. have expanded their operations to include some form of agritourism (Canoves & de Morais, 2011; Chhabra, 2001; Che & Wargenau, 2011; Nickerson et al., 2001). Motivation for farmers includes both economic and social factors; to increase profitability as well as inform visitors about their craft (i.e. farming, ranching, etc.) (Rilla, 2011). Keeping the farm in the family for younger generations has also been an important rationale, and it provides an important outlet for expanding business enterprises and focusing on environmental sustainability to keep the incoming generations invested in the business. Having the younger generation work on tourist-related business not only satisfies the intrinsic desire to keep a family owned business operated by the family members, but also increases the quality of the tourist experience for the newer generation market, largely fueled by the fact that younger generations generally tend to be better educated and open-minded (Canoves & de Morais, 2011). The emerging youth tourist population has also expressed an increased demand in experiential tourism, which has changed the tourism landscape by developing authentic cultural experiences. It is important to view these changes from a business perspective, so that businesses and farms relying on tourism as a portion of their income can adjust how they approach the existing and expanding future market (Bécot, et al., 2016; Costanigro et al., 2014; Hall & Gossling, 2016; Murray & Kline, 2015; Rilla, 2011; Robinson & Novelli, 2005).

Tourist motivation is based on core benefits such as relaxation, education, and experiences (Che & Wargenau, 2011). From the consumer's perspective, urban visitors removed from the farming culture hold a romanticized, nostalgic view of rural areas. From hayrides, corn mazes, and you-pick activities to farmer's markets and tasting rooms, agritourism opens the opportunity to regain the connection to what is perceived as simpler times. Tourism can be considered "functionally and symbolically equivalent to other institutions that humans used to embellish and add meaning to their lives," and by understanding cider's place within tourism, the industry can fulfil that human need (Grabrun, 2001).

By understanding how cider tasting rooms function within agritourism, we can improve understanding of how maintaining land in farms may increase economic returns in rural areas (Che & Wargenau, 2011). The encounter in the tasting room is important for the educational appeal of alcohol tourism. Information on what is being consumed, how it should be consumed, how it was processed/prepared, and how it should be stored and enjoyed is essential for the customer experience. Thus, the tasting room reflects the farm-friendly, down-home atmosphere of the operation.

At a regional level, wine trails have strengthened destination tourism appeal, linking wineries and supporting forms of natural and cultural attractions, on and off-site accommodations, and special event hosting (Che & Wargenau, 2011). Cider holds the same potential for these varied attractions, capitalizing on attractive scenery, historic sites and rural landscapes. Cider marketing could build on the example set by wineries and create tourism experiences unique to orchards. While the wine trail industry is well-developed in some areas of the U.S., cider tourism is a still-emerging market. The U.S. cider industry has seen an annual growth rate of 50% between 2009 and 2014, which can be partially attributed to the craft beer movement, but also to general customer knowledge of cider's existence as a product (Becot, et.al., 2016). Creating a new demand with different clientele seeking a unique experience offers significant challenges but expands the possibilities of tourism and capitalism.

Agritourism and heritage products provide economic benefits and cultural sustainability to local communities (Chhabra, 2001). Peck and Miles (2015) suggest that only one-third of cider makers are producing the apples themselves, representing an opportunity to increase sales of domestically grown apples, as well as for existing orchards producing self-branded hard cider. Warner (2014) estimates that only 200-300 acres of the 380,000 acres devoted to apple orchards in the country bear the specialty cider apples renowned for creating the highest quality cider as seen in England (United States Department of Agriculture [USDA], 2012). Because of the limited existing production, and the known horticultural risks of regional adaptability of heritage apple varieties, apple cider could easily become a costly but highly-profitable elite product. Depending on how the target market for apple cider evolves, cider could potentially cater to both customers seeking something affordable to enjoy regularly and customers seeking something exclusive to enjoy on special occasions.

Everett and Aitchenson (2008), found that food and beverage can enhance the experience within a destination because of its strong connection to heritage, cultural, and local values. Brakus et al. (2009), identified the four dimensions of experience as sensory experience, affective experience, intellectual experience, and behavioral experience. By using these dimensions in tourism, venues hold the opportunity to reach customers on multiple dimensions that they might not yet themselves understand are essential to satisfaction. The image of a destination is based on the individual's perception, so by building a regional identity and level of communality, an area can develop a unique and memorable tourism experience. The conflict of living in a globalized world fosters the constant endeavor for personal identity, largely due to the advances in technology including travel and communication (Horan, 2010). Agritourism tends to reject the aspects of modern technology, allowing a deep and undistracted connection to the earth, sustainability, and rural culture. This experience can provide meaning, direction, a pursuit for tourists seeking a deeper level of satisfaction, and individual development that is hard to obtain through technological or scientific means (Paulson, 2006).

Focusing on products of locally grown apples can potentially provide new destinations for rural and nature based tourism in the Northeast. As the craft beverage industry grows in America, it provides a new opportunity for the heritage agriculture product. Specifically, hard cider production is a newly emerging niche industry in apple-growing regions of the country. The concept of niche tourism "implies a more sophisticated set of practices that distinguish and differentiate tourists," that allows for the tourist experience to have a positive impact on a region's social and environmental culture (Robinson, 2005). Tourism and tourism trails for craft/artisan products such as beer and wine have become increasingly important to developing regional economies and infrastructure (Rogerson, 2016). Tourists seeking the "niche" experience are able to a more meaningful connection to both the area and to the authentic experiences encountered (Chhabra, 2001). This study strives to understand how hard cider production may affect local product promotion, rural tourism, and agriculture's economic viability in the Hudson Valley region of New York.

METHODOLOGY

The research plan began with an intensive review of literature pertaining to apple-growing in regions of the northeastern United States and researching currently operating and licensed establishments selling hard apple cider. New York had the largest number of facilities that fit these requirements with eighty-two establishments in the state, including twenty-four in the Hudson Valley area. To further narrow our target establishments, only facilities that had an on-site tasting room featuring their hard apple cider product(s) were included in this research. Nine establishments meeting these criteria were identified and contacted, seven of which agreed to participate in the study (Table 1, Figure 1). The study involved human subject research, thus, approval from Montclair State Institutional Review Board (IRB) was duly undertaken.

Table 1. Participating Cideries

Orchard Name	Cider Brand	City	County
Warwick Valley Winery & Distillery	Doc's	Warwick	Orange
Pennings Orchard	Pennings	Warwick	Orange
Applewood Winery	Naked Flock	Warwick	Orange
Soons Orchards	Orchard Hill	New Hampton	Orange
Wilklow Orchards	Bad Seed	Highland	Ulster
Del Peral Family Farm	Nine Pin	Albany	Albany
Goold Orchards	Joe Daddy's	Castleton	Rensselaer

Figure 1. Map of Participating Cideries. Source: Montclair State University.

Each of these seven establishments was contacted on the email addresses provided on their websites requesting their participation in the study and followed up with a phone call. Then a site visit was scheduled during their tasting room hours of operation to administer the IRB approved customer survey between the months of September and October during 2016. A total of three hundred five customer surveys were administered at seven cideries operating in the Hudson Valley area, associated with an on-site or local orchard with an on-site tasting room. The survey participants were required to be of legal drinking age, twenty-one or older, and to have tasted the cider at the establishment. The customer survey was developed to capture the demographic information of respondents, tourism factors, local/artisan support motivation, and tourist motivation. The demographic section included questions addressing gender, age (range given), marital status, ethnicity, highest completed education, and household income. The tourist section was created to understand more about the participants' tourism habits related to their current visit in the Hudson Valley area and overall relationship to craft cider, beer, and wine. The local/artisan support motivation section was developed to address questions regarding willingness to pay and purchase intentions on local/artisanal hard cider, as well as a write-in question asking the participant to identify what "local" means to them in terms of mileage. The tourist motivation section was developed as a five-point Likert scale group of questions asking the participant to identify the level of importance for nineteen potential factors that might have influenced their decision to consume cider. The scale was developed using the number 1 (not important) to 5 (extremely important).

The customer surveys were administered in person by the researcher at each participating orchard's tasting room. After the customer had ordered their drink or finished cider tasting with the bartender, they were approached by the researcher. If they agreed to participate, they received the survey and a pen along with quick verbal instructions on what to do, given privacy for about five minutes, and then the researcher collected the completed surveys for analysis. In person distribution of surveys ensured that only people who were actively experiencing the product and visiting the establishment would be able to participate. Approaching customers in person also allowed the researcher to make a more personal connection to the consumer and gain observational analysis throughout the time at each cidery. The collected responses from the customer surveys were numerically coded and entered into SPSS statistical software for data analysis. Reliability and validity was determined, descriptive statistics analyzed, and factors identified through Principal Component Analysis (PCA). PCA was chosen because there was little prior knowledge about the data before running the statistical tests; it is also an effective method of analysis because it allows the exploration of additional components within the data set, so that the data can be easily interpreted (Takane, 2014). These factors were then organized by groupings in a Varimax Rotation and designated by common themes.

RESULTS

The customer survey yielded three hundred five respondents. The survey was broken into four categories grouping questions based on baseline demographics, tourist baseline, local/artisan product motivation, and tourist motivation. Out of the respondents, 45.9% identified themselves as female, 35.1% identified themselves as male, and 19% chose to not identify their gender. 63% of participants were between the ages of 21 and 35 years, with 57.8% of that age rage (and 36.4% of the overall group) between the ages of 24 and 29 years. 56.7% of participants identified as single, and 29.8% identified as married. 88.2% of participants identified as Caucasian. When asked to identify their highest education level, 76.4% of the respondents indicated that they had earned a Bachelor's or higher degree, and 60.9% reported earning an annual household income of over $60,000. The median annual household income reported in the 2014 New York State census was $58,687 and $55,775 was the U.S. median household income (United States Census Bureau, 2015). These demographic summaries of respondents for this sample show a distinct demographic for the emerging hard cider consumer in the Hudson Valley area with most being single, Caucasian, education level of Bachelor degree or above, and having income above the median U.S. and New York State household (Table 2).

Table 2. Demographic Summary of Respondents.

Variables	**Frequency**	**Variables**	**Frequency**
Gender		Ethnicity	
Male	107 (35.1%)	Caucasian	269 (88.2%)
Female	140 (45.9%)	Hispanic	12 (3.9%)
Choose not to answer	58 (19%)	Black	3 (1%)
		Asian	8 (2.6%)
		Pacific Islander	0 (0%)
		Other	13 (4.3%)
Age (years)		Education (highest completed)	
21-23	31 (10.2%)	High School	12 (3.9%)
24-29	111 (36.4%)	Some College	35 (11.5%)
30-35	50 (16.4%)	Associate's Degree	25 (8.2%)
36-41	28 (9.2%)	Bachelor's Degree	148 (48.5%)
42-50	34 (11.1%)	Master's Degree	76 (24.9%)
50+	51 (16.7%)	Doctoral Degree	9 (3%)
Marital Status		Household Income	
Single	173 (88.2%)	Less than $35,000	47 (15.4%)
Married	91 (29.8%)	$35,000-59,999	72 (23.6%)
Divorced	13 (4.3%)	$60,000-89,999	59 (19.3%)
Other	28 (9.2%)	$90,000-119,999	45 (14.8%)
		$120,000-159,999	36 (11.8%)
		$160,000+	46 (15.1%)

The majority of survey participants (92.7%) were relatively local, residing within the tri-state area (New York, New Jersey, and Connecticut), with 55.7% of respondents residing in New York. 67% drove one hour or less to get to the cidery they were visiting, and 88.9% of the survey respondents drove two hours or less. 32.8% of surveyed participants traveled less than thirty minutes, matching the finding for this study those respondents were local residents, supporting a local craft cidery. Nearly three-quarters (70.2%) of the respondents were first time visitors to the cidery, and 60% stated that this was their first visit to any cidery in the Hudson Valley region, highlighting the attribute that this is an emerging market with a growing interest of visitors. Of the surveyed participants, 49.8% heard about the cidery they were visiting through word of mouth, and 21.3% found it through self-research. When asked "how long are you staying in the area?" 34.8% of respondents claimed to live in the area, 47.9% were taking a day trip, and 17.2% were taking an overnight (or longer) trip. Of the respondents, 61.3% replied that they were traveling to the area specifically for the craft cider experience. It was the first time visiting a cidery/brewery/winery in the Hudson Valley area for 30.8%, and the first time for cideries/breweries/wineries in general for 14.4% of participants. 49.8% of the respondents suggested that they typically visit cideries/breweries/wineries in the area 1-3 times per year. When asked how many cideries/breweries/wineries they intended to visit, 73.1% of respondents suggested that they only intended to visit the cidery where they were surveyed during their trip, with 26.9% planning to visit two or more. 78.3% of respondents stated they believed artisan products are often, usually, or always of higher quality. 66.9% of respondents indicated that they were not homebrewers, 19.7% had interest in becoming a home brewer, and 13.4% had some experience with brewing (Table 3).

Table 3. Responses Regarding Tourism Attributes.

Variable	**Frequency**	**Variable**	**Frequency**
In what state do you reside?		How many times have you visited this	
NY	170 (55.7%)	cidery?	
NJ	97 (31.8%)	First visit	214 (70.2%)
PA	6 (2%)	2	31 (10.2%)
MD	6 (2%)	3	15 (4.9%)
MA	6 (2%)	4	15 (4.9%)
CT	16 (5.2%)	5	6 (2%)
WI	2 (0.7%)	6+	24 (7.9%)
GA	2 (0.7%)		
How many other cideries have you visited		How did you hear about this cidery?	
in the area?		Drove by it	32 (10.5%)
First visit	183 (60%)	Word of mouth	152 (49.8%)
2	74 (24.3%)	Advertisement	34 (11.1%)
3	25 (8.2%)	Website	22 (7.7%)
4	7 (2.3%)	Self-research	65 (21.3%)
5	5 (1.6%)		
6+	11 (3.6%)		
How far did you travel to get here?		How long are you staying in the area?	
Under 30 minutes	100 (32.8%)	I live here	106 (34.8%)
½ hour – 1 hour	107 (35.1%)	Day trip	146 (47.9%)
1-2 hours	64 (21%)	Overnight	28 (9.2%)
2-4 hours	27 (8.9%)	2-3 nights	25 (8.2%)
4-6 hours	1 (0.3%)	4+ nights	0 (0%)
6+ hours	6 (2%)		
Did you travel to this area specifically for		Are you a homebrewer?	
a craft cider experience?		No	204 (66.9%)
Yes	186 (61%)	No, but I would like to be	60 (19.7%)
No	119 (39%)	I used to brew	11 (3.6%)
		I brew only with others	11 (3.6%)
		Yes	19 (6.2%)
How often do you visit		How often do you visit	
cideries/breweries/wineries in the Valley?		cideries/breweries/wineries in	44 (14.4%)
First time	94 (30.8%)	general?	128 (42%)
1-3 per year	152 (49.8%)	First time	83 (27.2%)
4-8 per year	30 (9.8%)	1-3 per year	16 (5.2%)
1 per month	10 (3.3%)	4-8 per year	28 (9.2%)
2-3 per month	14 (4.6%)	1 per month	6 (2%)
Weekly	5 (1.6%)	2-3 per month	
		Weekly	
How many cideries do you hope to visit		Do you believe artisan products are of	
on this trip?		higher quality?	
Only this one	223 (73.1%)	Never	6 (2%)
2	38 (12.5%)	Rarely	4 (1.3%)
3	26 (8.5%)	Sometimes	47 (15.4%)
4	12 (3.9%)	Often	71 (23.3%)
5	2 (0.7%)	Usually	94 (30.8%)
6+	4 (1.3%)	Always	83 (27.2%)

Of participants surveyed 58.1% claimed they typically paid \$5-7 for a pint of cider, and 23.9% typically paid over \$7. 47.9% of the respondents stated they would be willing to pay \$7 or more for a pint of locally made cider, suggesting a distinctly upscale market and might be a reflection of high-income cider consumers. Of those surveyed, 69.8% of participants stated they would be either likely or extremely likely to purchase a bottle of cider after visiting the cidery. When questioned how much of the product needs to be locally grown/produced for them to consider it "local", 73.4% of those surveyed stated that it would need to be within 60-100 miles. 96.4% of respondents indicated that to consider a product local, it would need to be grown/produced within 100 miles or less from the purchase area. When asked to write in the number of miles a product would need to be produced from where it was purchased for it to be considered "local", 60% of the respondents stated that 45 miles or less was necessary (Table 4).

Table 4. Product Motivation Factors.

Variable	**Frequency**	**Variable**	**Frequency**
How much would you typically pay for hard cider?		How much would you be willing to pay for locally made cider?	
\$3-5	53 (17.4%)	\$3-5	36 (11.8%)
\$5-7	179 (58.7%)	\$5-7	123 (40.3%)
\$7-9	49 (16.1%)	\$7-9	90 (29.5%)
\$10-12	20 (6.6%)	\$10-12	43 (14.1%)
\$12+	4 (1.3%)	\$12+	13 (4.3%)
How likely are you to purchase a bottle of cider after visiting the cidery?		What percentage of a product needs to be locally grown/produced for you do consider it "local"?	
Not likely	18 (5.9%)	0-20%	11 (3.6%)
Somewhat likely	74 (24.3%)	20-40%	22 (7.2%)
Likely	61 (20%)	40-60%	48 (15.7%)
Very likely	78 (25.6%)	60-80%	119 (39%)
Extremely likely	74 (24.3%)	80-100%	105 (34.4%)

The tourist motivation questions were designed to determine what qualities of a tourist experience best prompted their visit. These questions asked survey participants to rate each quality from not important to extremely important on a five-point scale. By looking at the means and standard deviations of the full data set, the top six variables influencing tourist motivation scoring an average about four (very important) were "to spend time with family/friends", "for fun", "to experience something new", "to support small businesses", "to support local businesses", and "to support craft/artisan producers." The only factor scoring a mean of below two (somewhat important) was "to feel intoxicated" (Table 5).

The data set was examined using principal component analysis (PCA). The PCA on the survey responses revealed the presence of five factors with eigenvalues above 1.0 and could explain about 67.8% of the variance. Following Patil et al. (2008), suggestion that reliance on eigenvalues alone can defeat parsimony, the scree plot was examined where it was confirmed that a five-factor solution did represent most of the variance. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.81 exceeded the recommended value of 0.60 and Bartlett's tests of sphericity result of 3351.98 with $p < 0.0001$ supported the initial factorability of the correlation matrix. No item was loaded below 0.4 on the communalities, thus, meeting the Stevens requirement, and no item was loaded on multiple components when examining the Component Matrix or the Rotated Component Matrix (Stevens, 2002). Based on the found results, it was determined that no factors needed to be removed from the analysis.

The list of variables with nineteen items was further tested to aid in the interpretation of these five components by using a Varimax rotation. The rotated solution revealed an optimal loading result. The loadings were clear, each with considerable values, all of the loading on only one component. The five components were identified as Cultural Experiences, Local Support, Palate Expansion, Hedonic Pleasures, and Alcohol Pleasures. Cronbach's Alpha for the resultant scale was 0.858 indicating strong reliability for the factors. The validity of the instrument was further supported by the factor loadings and clarity of the underlying structure (Table 6).

The customer survey outlined nineteen items within five factors, which were grouped together by abovementioned five themes. Each item was measured using a five-point Likert scale from one to five (not important to extremely important). A reliability test was run on the five factors. The "Cultural Experience" category was tested for reliability using Cronbach's coefficient alpha, and was found to have coefficients of .816, with inter-item correlations ranging between 0.279 and 0.756. The "Local Support" category was tested for reliability using

Table 5. Tourist Motivation Factors.

Variable	Mean	Standard Deviation
To spend time with family/friends	4.39	0.967
For fun	4.32	0.900
To experience something new	4.13	0.970
To support small businesses	4.10	1.024
To support local businesses	4.08	1.039
To support craft/artisan producers	4.08	1.005
To get away for the weekend/day	3.95	1.149
To taste new ciders	3.76	1.189
To taste ciders specific to the HV area	3.40	1.213
To relieve stress	3.39	1.412
To drink alcoholic beverages	3.24	1.445
To experience and artisan product	3.17	1.141
To increase my knowledge of flavors	3.16	1.243
To increase my knowledge of cider	2.92	1.270
To learn more about cider production	2.50	1.254
To get a tour of the facility	2.45	1.287
To learn more about apple farming and agriculture	2.35	1.154
To meet new people with similar interests	2.25	1.341
To feel intoxicated	1.80	1.205

Cronbach's coefficient alpha, and was found to have a coefficient of .967, with inter-item correlations ranging between 0.867 and 0.960. The "Palate Expansion" category was tested for reliability using Cronbach's coefficient alpha, and was found to have coefficients of .808, with inter-item correlations ranging between 0.225 and 0.825. The "Hedonic Pleasures" category was tested for reliability using Cronbach's coefficient alpha, and was found to have coefficients of .672, with inter-item correlations ranging between 0.179 and 0.560. The "Alcohol Pleasures" category was tested for reliability using Cronbach's coefficient alpha, and was found to have coefficients of 0.591, with inter-item correlations ranging between 0.426 and 0.426. The Cultural Experience, Local Support, and Palate Expansion categories show very high reliability with Cronbach's alpha coefficient scores above .800, and the Hedonic Pleasures and Alcohol Pleasures show moderate reliability with Cronbach's coefficients above .500 (Cronbach, 1951). While the reliability of the first three variables came out to be strongest, when compared to the mean scores of the grouped questions, the results were not directly aligned with the importance of those variables.

CONCLUSIONS

The results from the customer survey allows certain conclusions to be drawn about this sample study, where the average hard cider consumer visiting a sample of seven Hudson Valley cideries was young, Caucasian, educated, with above median household income, and seeking a unique and authentic cultural experience that is focused around a consumable product. A majority of visitors (67%) lived locally, with less than one hour travel while (85.9%) travelled up to two hours for the experience of visiting a hard cider production area, and this visit increased their likelihood to purchase products (69.9%). The majority of consumers (81.3%) believe that artisan cider products of are higher quality. Almost half of consumers (47.9%), are willing to pay premium prices for locally made ciders. The customer survey further identified motivation factors for rural tourism as experiencing something fun and new, as well as supporting small, local, and craft producers. Hard cider consumers are specifically drawn to a rural region for tasting something identified with that region. Hard cider producers could capitalize on these factors by offering unique experiences that incorporate those motivational factors. Operators should not only look at their own businesses but see how they could enlist other community attractions and businesses to encourage regional rural tourism beyond individual efforts. Hard cider is a re-emerging market product, so right now everything about it is new. While wine and beer may have set model for agritourism and craft beverages, cideries and apple orchards hold the opportunity to expand within these models to create a unique experience specific to this new tourist.

While these findings allow implications to be drawn about cidery tourism in the Hudson Valley region, more research is needed. Local product-based tourism for consumable and artisan products is a growing movement nation-wide. Customer interest in gaining a deeper understanding for where their goods come from and how they are created has created a market for high quality, locally sourced products. This trend shift in customer preferences developing over the last decade also show that consumers wish to support local craft beverages. Hudson Valley wineries have been offering a glimpse into the authentic experience of their product through tours and tastings for several decades, followed more recently by a proliferation of local breweries mirroring this method. Cideries are the most recent agritourism expression of this approach for regional promotion and product sales. Many established wineries and apple orchards have already begun incorporating hard cider into their brand, and Hudson Valley tourism bureaus already support the locally produced craft beverage sector (HVADC, 2015; Hudson Valley Tourism, 2018). To further understand how the Hudson Valley region can improve this sector of tourism, future studies can explore marketing and distribution opportunities and barriers, policy interventions, and means to enhance the experience of cider consumers.

Table 6. Rotated Component Matrix

Variable	1	2	3	4	5	Coefficient Alpha	Mean Score
Cultural Experience						0.816	2.54
To learn more about cider production	.835						
To learn more about apple farming and agriculture	.809						
To get a tour of the facility	.753						
To meet new people with similar interests	.622						
To experience an artisan product	.524						
Local Support						0.967	4.09
To support small businesses		.936					
To support local businesses		.931					
To support craft/artisan producers		.892					
Palate Expansion						0.808	3.47
To taste new ciders			.801				
To taste ciders specific to the HV area			.608				
To increase my knowledge of flavors			.584				
To increase my knowledge of ciders			.583				
To experience something new			.512				
Hedonic Pleasures						0.672	4.01
To get away for the weekend/day				.769			
To spend time with family/friends				.729			
For fun				.594			
To relieve stress				.586			
Alcohol Pleasures						0.591	2.52
To feel intoxicated					.844		
To drink alcoholic beverages					.732		

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