

TASTING ROOM VISITOR USE OF TECHNOLOGY
TO PLAN WINERY TASTING ROOM TRIPS

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ABSTRACT

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The objective of this research was to identify how winery tasting room visitors use internet platforms, apps, and computing devices to plan their trips. Consumer Behavior Theory and Consumer Purchase Decision Model guided the theoretical framework for this research. An online survey was completed by winery tasting room visitors who were intercepted at 20 wineries in Wisconsin and Minnesota. Findings were organized into three tourism planning stages of online trip planning: pre-travel, during-travel, and post-travel.

Results indicated that tasting room visitors used smartphones almost as much as laptops/desktop computers to plan and book their travel. During the trip almost half of all travelers posted to a social network site about their trip and/or winery visit. Lastly, tasting room visitors who found online reviews important to planning their trips, spent more money overall and visited more wineries than those who did not. Relevant managerial recommendations for mobile devices, social media, and internet access were developed from these results and are presented based on these findings.

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I. INTRODUCTION

Introduction

America's rural population has been steadily shrinking in size as traditional manufacturing, mining, forestry, fishing, and agriculture production declines (U.S. Census Bureau, 2015). In the last 50 years, a significant portion of the population relocated from rural areas to metropolitan locations (U.S. Census, 2010). This shift has caused economic decline in many rural areas and has forced communities to: seek new ways to stimulate their economies, increase community appeal, and entice business owners and young families to relocate to rural areas (Dimitri et al., 2005). Agriculture tourism development is one possible solution.

Increased agriculture tourism promotes economic growth within communities through local products purchased and services provided (Wargenau & Che, 2006). More specifically, wineries that host a tasting room on site can become a beneficial tourist destination (Carmichael, 2005). Most wineries in emerging wine regions depend primarily on tasting room sales to tourists for their revenues.

The importance of this research is centered on wineries and their significance as agriculture tourism destinations. A winery's tasting room provides a unique agricultural tourism destination; creating employment opportunities from services rendered and products sold. The stronger more viable wineries become the more they are capable of helping to boost the local economy. Wine tourism can promote economic growth within communities as wine tourists often seek out other local attractions in addition to visiting the tasting room (Wargenau & Che, 2006).

Increased tourism visitation increases social opportunities for visitors as well as regional consumers through social and/or cultural experiences, personal development, and interactivity (Anwar & Sohail, 2004). Consequently, it is necessary for winery owners and destination marketers to enhance existing traditional marketing strategies (brochures, billboards, and advertisements) to encourage on-site tasting room sales to consumers (Lynch & Horton, 2002). More importantly, winery owners should examine and develop online technology based marketing plans, to further promote their business.

In the past fifteen years, the number of people using the Internet has increased from 122 million users to over 300 million users in the United States (World Bank, 2015). Rapid

technological advances continue to influence consumers, including their travel planning (Lou et al., 2005). Online marketing is an ever present force that lures, informs, and often pressures people when making their travel choices. When approximately 95% of Internet users rely on information from the web as part of their travel information search process, according to Cox, et al. (2009), it becomes extremely important for destination marketers and business owners to understand how mobile technology and the devices used impact travelers.

The results of this study may assist winery owners to more effectively market winery tasting rooms to a wider population. This will in turn enhance local agriculture tourism visitation, increase economic development, and create more employment opportunities for young people and families in rural areas. Additionally, improved tourism attendance will increase social opportunities for both the visitor as well as the local residents (Anwar & Sohail, 2004).

Research Question and Objectives

The question presented for this study is the following: How do online technology and mobile devices influence winery tasting room visitors' planning behavior and overall trip experience? The research objective was to identify how technology influences

winery travelers' consumer behavior during the pre-, during-, and post-trip planning phases, to understand consumer preferences, and develop marketing strategies for wineries. Berkman and Gilson's (1986) theory of consumer behavior was employed to understand tourist information search behavior.

The consumer process of selecting destinations and planning travel is typically based on the five-stage consumer purchase model (Engel et al., 1968), which includes: need recognition; information search; evaluation of alternatives; purchase decision; and post-purchase behavior. In a tourism context, these stages are often classified into pre-travel, during travel, and post-travel phases (Cox et al., 2009). Recent research by Karanasios, Sellitto, & Burgess, (2015) illustrates tourism research specifically focused on use of mobile technology, which further demonstrates the planning process of tourists using technology during the three stages of trip planning (Figure 1.).

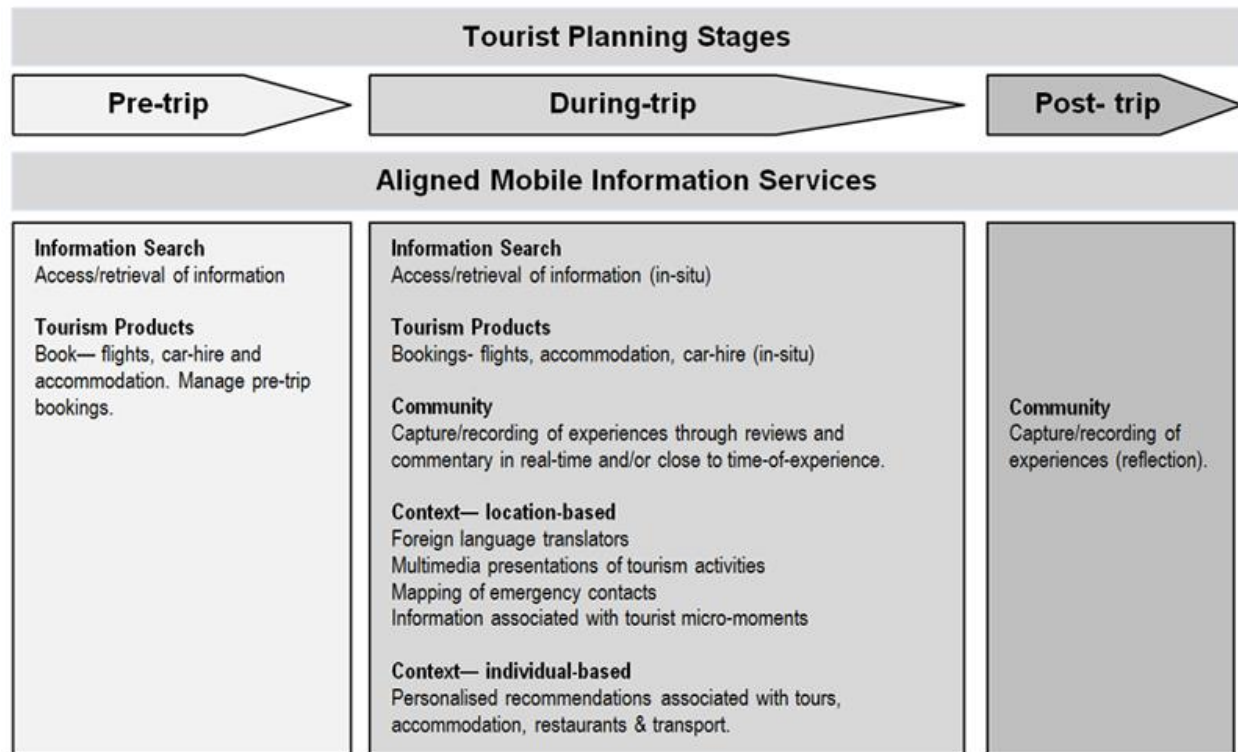


Figure 1. Conceptual Framework, Tourist Planning Stages (Karanasios, et al., 2015)

Purpose of Study

This study is a one of many projects overseen and directed by the Northern Grapes Project, a Specialty Crops Research Initiative Grant, funded by the United States Department of Agriculture (USDA). The overall goal of the Northern Grapes Project (NGP) is to enhance and support growth and development of wineries and vineyards in cold-climate regions of the Midwest and Northeast through trans-disciplinary research and outreach addressing four areas:

1) Varietal performance and resulting fruit and wine flavor attributes in different climates; 2) Applying appropriate viticulture practices to achieve consistent fruit characteristics for winemaking; 3) Applying wine-making practices to their unique fruit composition to produce distinctive, high quality wines that consumers like and purchase; and 4) Understanding consumer preferences and individual/regional marketing strategies that to increase sales and growth of wines made from cold-climate cultivars and sustainable profitability of wineries and vineyards. (Northern Grapes Project, 2014)

The focus of this exploratory research was on the fourth area of the NGP's goals; to understand consumer preferences and develop marketing strategies for wineries. Specifically, the tasting room visitor's total trip planning behavior and the influence technology has on their planning behavior.

Furthermore, existing information regarding search behavior theory (Berkman and Gilson, 1986) and consumer planning stages (Karanasios et al., 2015) in online travel and trip planning were explored. Pertinent applied managerial implications to benefit winery tasting room owners were addressed and recommendations made.

It is necessary for winery owners to accurately recognize how visitors use technology and devices, in order to better promote their businesses with their available marketing budget. Furthermore, by understanding which websites or social applications visitors use at each stage of planning and how they access those sites will help marketers to better provide the right marketing content in the right places and with the right formatting to optimize the viewing capabilities.

It was expected that the results from this study would contribute to the following: further research in agriculture studies specifically with wine, internet destination travel sites, social media, and the impact of smartphone applications on tourists' travel decisions, and which devices (laptops, tablets, and smartphones) are most commonly used to access such applications and websites.

Over the last decade there have been significant changes to information search patterns and information consumption, in part due to technological advances (Nicholas, 2013). As new devices are offered and new technologies are developed, prior research quickly becomes outdated and is less reliable in guiding managerial implications of changing tourism trends. Due to the rapid change in technology it was necessary to include industry related research so that current information based on visitor

planning behaviors and how technology influences their travel could be reported.

II. LITERATURE REVIEW

Introduction

This chapter will identify literature related to the influence of technology on winery tasting room visitors' planning behaviors. For organizational purposes, the literature is presented under the following topics: (1) recent wine tourism growth; (2) the role of wine tourism in rural community development; (3) wine tourism and technology; (4) mobile device technology; (5) social media; and (6) online reviews.

Wine tourism research represents one of the newest and least explored areas of wine marketing research (Lockshin & Corsi, 2012). Minimal research has been conducted in the area of on-premise behavior compared to in-store behavior due to the fact that about 80% of wine sales in developed markets are in shops (Campbell, & Guibert, 2006). Lockshin and Corsi (2012) further report that wineries need to do a better job utilizing tourism for both brand building and cash flow and that more research needs to be conducted to learn about how to maximize returns from tourism investment.

Recent wine tourism growth

The past decade has seen a dramatic increase in the number of wineries opening in emerging wine regions (Giuliani et al.,

2011). These newly established wineries have been found to benefit from more direct sales by developing tasting rooms onsite. This is due to the fact that smaller wineries make most of their wine sales onsite at the tasting room (Duarte Alonso et al., 2008). Wineries can sell directly to visitors at the tasting room without the need for a distributor or retailer, which allows wineries to capture a higher percentage of the bottle mark-up price (Notarius et al., 2001). Furthermore, this direct point-of-sale negates the need for wineries to compete against competitors on price unlike retail markets.

In addition to direct wine sales, wineries that host a tasting room on-site can become a beneficial tourist destination (Carmichael, 2005). Yuan et al. (2005, p. 2) defined winery tasting room tourism as "attendees actively engage in for the satisfaction of their interest in wine and/or for the entertainment made available by other leisure activities." In addition, the definition of the consumer's perspective of wine tourism is "visitation to vineyards, wineries, wine festivals and wine shows for which wine tasting and/or experiencing the attributes of a wine region are the prime motivating factors for visitors" (ibid., p.3).

The role of wine tourism in rural community development

As previously stated, the production of traditional manufacturing, mining, forestry, fishing, and agriculture products is continually declining in the U.S. (U.S. Census Bureau, 2015). This is further illustrated in Figure 2, which display labor force trends in the agriculture, industry, and service sector over the last 100 years (U.S. Census Bureau, 2015). The labor force in both the manufacturing industry and agriculture sectors have continually declined while service related labor base has increased dramatically.

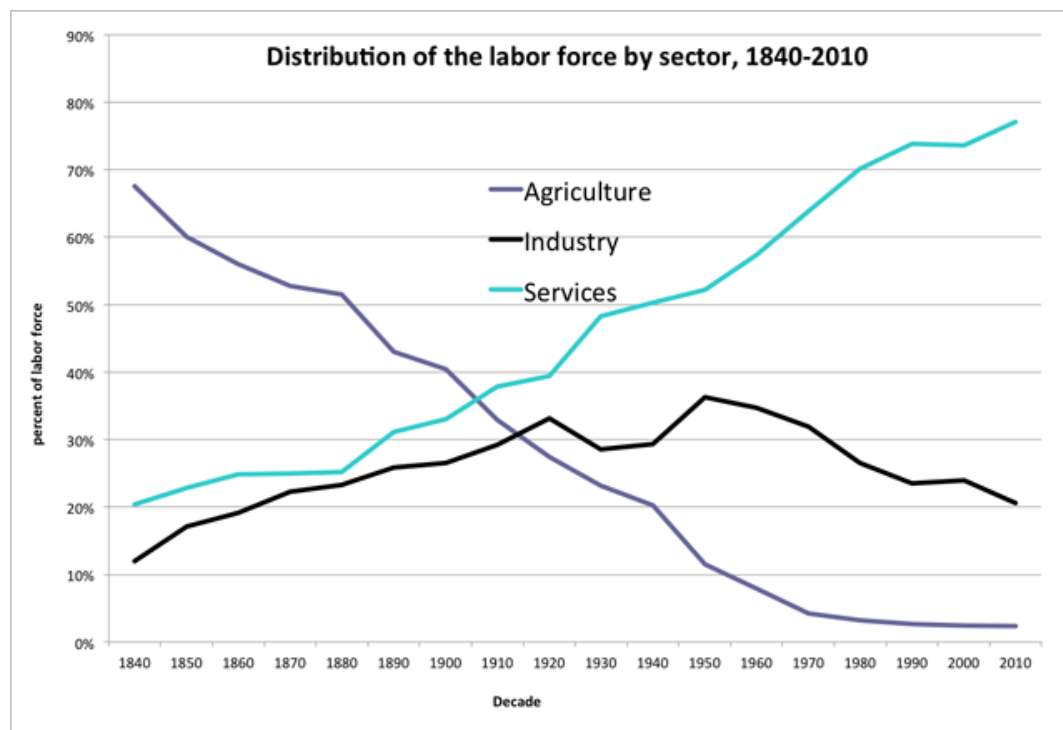


Figure 2. Distribution of the Labor Force by Sector, 1840-2010 (U.S. Census Bureau, 2015)

Tourism is revered as a "people industry" (Morrison 1989), or in other words, a service industry that is "highly dependent on the quality of the hospitality offered by employees" who work at hotels, restaurants, local attractions, and gift shops (Vogt, & Fesenmaier, 1995, p.765). Specific to wine tourism, service provided by the winery is considered the most enjoyable and necessary aspect of a visit to a winery (Hall & Mitchell, 2002). Gómez and Kelley (2013) found that higher levels of customer satisfaction at a tasting room are associated with greater sales (as measured by the number of bottles purchased and total amount spent on wine).

Wine tourism takes place in the tourist destination region, which refers to the destination that attracts tourists to stay based on its particular features (Leiper, 1979). Travelers go to tasting rooms to experience the wine product as well as other leisure-related experiences on site (Anwar & Sohail 2004).

In addition to visiting the tasting room, wine tourists often also seek out other local attractions while visiting the region. As prior research by Williams & Dossa (2003) reports, tourists were found to "place importance on selecting destinations which offered them opportunities to experience scenic areas, meet friendly and hospitable people, visit family oriented places as well as see and do a wide range of things" (Williams & Dossa, 2003, p. 9).

Agriculture tourism development, such as wine tourism, can promote economic growth within communities through local business collaboration, products purchased, and services provided (Wargenau & Che, 2006). Wine sales offers many possibilities for the wineries to form alliances with other service-related tourism operators, accommodation providers, restaurants, etc. (Wargenau, & Che, 2006). Because of these alliances and business collaboration, increased service positions can be generated.

Rural areas can have a special appeal to tourists because of the charm associated with these areas and their distinct cultural, historic, ethnic, and geographic characteristics (Edgell and Harbaugh 1993). Rural tourism also is less costly and easier to establish than other rural economic development strategies such as manufacturing (Wilson et al., 2001).

Rural tourism can be developed locally with participation from local government and small businesses. Rural tourism provides a base for these small businesses that might not otherwise be able to survive in rural communities because of their small populations. Tourism particularly helps two types of small businesses in rural areas, those directly involved in tourism (e.g., attractions and hotels/motels) and those indirectly involved in tourism (e.g., gas stations and grocery

stores) (Wilson et al., 2001). Additionally, rural tourism works well with existing rural enterprises (Oppermann, 1996).

Wine tourism and technology

Innovations in digital technologies and web 2.0 are dramatically impacting tourists' planning behavior (Sigala, 2007). Web 2.0 can be defined as world wide web sites that emphasize user-generated content, usability, and interoperability (Sigala, 2007). The Internet has assisted in developing quick changes to destination marketing. As previous research shows, websites are an important source of information across all stages of the traveler's trip planning process (Choi et al., 2007). Furthermore, online sources are particularly critical for prospective travelers when they are in the research phase (Pan & Fesenmaier, 2006). Websites and social media sites can be valuable tools to display basic content such as hours of operation, weekly specials, additional recreation activities, and product information and pricing (Karanasios, 2015).

Significant changes continue to be made in consumers' information search patterns and information consumption (Bohn & Short, 2012). This is in part due to the rapid changes of software apps and social media advances (Nicholas, 2013). It is imperative for winery owners to accurately recognize how

visitors use technology and devices in order to better promote themselves (Lockshin & Corsi, 2012). Prior research suggests that social media assists with wine sales because word of mouth is so effective among wine consumers (Leigon, 2011).

Word of mouth (WOM) is defined as interpersonal communication about products and services between consumers and is one of the most influential sources of marketplace information for consumers (Settle 1995). It is so influential because consumers generally trust peer consumers more than they trust advertisers or marketers (Sen & Ierman, 2007). WOM is typically independent of marketers' selling activities and is thus considered to be more trustworthy and credible (Bone 1995; Bickart & Schindler 2001; Lau & Ng 2001)

Although similar to the traditional form, electronic WOM (eWOM) has several unique characteristics. EWOM often occurs between people who have little or no prior relationship with one another and can be anonymous (Lee & Youn, 2009). This anonymity allows consumers to more comfortably share their opinions with one another (Goldsmith & Horowitz, 2006). The unique characteristics of eWOM encourage consumers to share their opinions with other consumers, thus increasing the volume of eWOM (Chatterjee 2001).

Additionally, Wilson & Quinton (2012) found that the socialization aspect of social media was a good fit with wine,

as it allowed consumers to exchange information and encourage others to try different wines. Furthermore, by understanding which websites and social applications visitors use at each stage of planning, and how they access those sites, marketers will be more apt to provide appropriate marketing content in the most lucrative places. Importantly, this content needs to include accessible formatting to optimize viewing capabilities (Tussyadiah & Wang, 2016).

However, as new software apps and social media sources are developed and new devices are offered, prior research quickly becomes outdated and is less reliable in reporting managerial implications in changing tourism trends (Lou et al., 2005). Social networking websites like Facebook and Instagram, as well as online booking and review websites such as TripAdvisor and Yelp, continue to transform how viewers interact and exchange information. Therefore, there is a need for continued research to examine the changing information exchanged on these interactive websites and the impact on tourist behavior (Ramsaran-Fowdar & Fowdar, 2013).

Mobile device technology

Mobile phones have continued to evolve to provide a variety of input capabilities. Mobile devices offer reliable and high bandwidth Internet access, and incorporate powerful location

awareness functions (Want, 2009). Pew research (2015) reports that 64% of American adults now own a smartphone of some kind, which has dramatically increased from 35% in 2011. Importantly, the increased capabilities of mobile or smartphones support thousands of mobile applications (apps), which extend the functionality of mobile phones to a wide range of information services such as specialized information search, social networking, navigation, etc. (Wang et al., 2012).

The term mobile-friendly has been used in many contexts including, in particular, the user interaction design of mobile applications and websites. Loading a webpage is a complex procedure involving many sub-systems: object downloading, CSS/JavaScript parsing, content rendering, cache management, and so on. A website cannot become mobile friendly just by changing the appearance of the website. To achieve mobile friendly web browsing, several factors must be optimized: performance, bandwidth consumption, and content placement.

First, Internet users are sensitive to webpage loading performance time. Despite its good looks, a professionally designed website might consume an unexpectedly large amount of resources (downloading performance) on a mobile device. Typical issues include using unnecessarily high-resolution images embedded within a single page, and too much content that few

users will read due to having to scroll down to the bottom of the page.

Additionally, bandwidth is a critical resource for mobile customers who are billed by their data plan usage. Therefore, under the constraints of providing a satisfactory user experience, the bandwidth consumption of the mobile web needs to be minimized. For example, some popular mobile websites' landing pages can use several megabytes of data, which is quite large. Mobile friendly websites require different downloading strategies such as cache which is a component that stores data so future requests for that data can be served faster.

Lastly, content placement must to be addressed for a website to be considered mobile friendly. Mobile devices do not have an attached mouse like a desktop computer, but rather they rely on either a keypad or a touchscreen for navigation. Because of the limited size of a mobile device screen, navigation elements are simplified and fewer shown than what would normally be included on the main site. For this reason, mobile versions of websites often have a stripped-down navigation scheme. Even though smart phones are larger than their predecessors, they're still not big enough to effectively support more than a single-column layout when displaying content. A single-column content layout uses the entire width of the screen (in whatever orientation) avoids the need for a user to pan back and forth or zoom in.

Recent studies indicate that smartphones and the apps that run on them have the potential to assist travelers by providing easy access to information anytime and almost anywhere (Rasinger, et al., 2007). Smartphones as one kind of new media now can provide a wide range of information services to support not only basic travel activities such as planning, reservation, and navigation, but many "micro-moments" within the travel process such as finding gas stations, estimating waiting time of rides, and "seeing" places as they once were (Wang et al., 2011). Additionally, mobile phone users can engage with different mobile sources throughout their entire travel experience, such as reading online reviews, posting to social networking sites, and navigating (Choi, et al., 2007).

Wang et al., (2012) reported that travelers mainly used smartphones for four kinds of activities, including travel planning (e.g. prepare itinerary, make reservations), general facilitation (e.g. search for things to do, navigation), advanced facilitation (e.g. guide tours, track movements), and sharing travel experience (e.g. share photo on Facebook).

Kramer et al. (2007) found that the use of smartphones can create spontaneous deviations, such as changes of travel route, duration, and walking distance. Wang et al., (2011) revealed that smartphones can also change tourists' behavior and emotional states by addressing a wide variety of information

needs. In particular, the instant information support of smartphones enables tourists to more effectively solve problems, share experiences, and “store” memories. They also found that the use of smartphones can not only change travel activities, but also change travelers’ emotions by making them feel more secure, confident, and excited.

Smartphones provide access to location-based services (i.e. “destination guide” apps that can recognize the current location of tourists) and provide relevant suggestions based on tourists’ inquiries, including restaurants, souvenir shops, gas stations and even restrooms. Thus, tourists may divert from their current route, add attractions to their route, and initiate unplanned activities (Hwang 2011).

Social media

From the success of social networking sites like Facebook to the explosion in user-generated content, there has been a dramatic shift in how consumers interact with the Internet (Drury, 2008). Social media as a whole describes online resources that people use to share ‘content’: video, photos, images, text, ideas, insight, humor, opinion, gossip, and news. Popular examples of social networking applications include Facebook and Twitter social networking sites (Drury, 2008).

Current estimates indicate that there are over 1.28 billion active Facebook users every month (MediaBistro, 2014). Twitter reported 255 million people who tweet monthly, six billion hours of video viewed on YouTube monthly, and 20 billion photos shared on Instagram in a year (MediaBistro, 2014). TripAdvisor currently has 90 million members and 290 million reviews and opinions (TripAdvisor, 2015). These new channels of communication provide opportunities for businesses to conduct real time conversations with their consumers (Assaf, 2012).

Social media have also been widely adopted by travelers to search, organize, share, and annotate their travel stories and experiences through blogs, online networking sites (e.g., Facebook, and TripAdvisor), and media sharing sites (e.g., YouTube) (Leung et al., 2013).

Online reviews

With the rising popularity of websites that contain content generated by travelers, researchers recognize the importance of social media in the research phase of the travel planning process (Lo, Cheung, & Law, 2011). By searching content on social media, consumers can not only collect travel information from friends and relatives who are within their social networks, but also acquire more extensive information from Internet users around the world (Leung et al., 2013).

In the era of social media, businesses want to entice consumers to post and interact online in order to create a fully interactive (also referred to as interactivity) and mutually beneficial relationship for business and the consumer (Li & Wang, 2011). Interactivity has been described as a reaction on the part of a receiver to an earlier transmission from a sender (Sundaret al., 2003). User-to-document interaction occurs when "users modify site texts, or when real-time feedback collected from receivers is used by the source to modify the message" (Endres & Warnick, 2004, p. 325). The audience is capable of adding directly to or modifying media content, as with websites like TripAdvisor.com or Yelp.com (Kidd, 2003). The audience modifies media content by providing feedback (Atton, 2002).

Ultimately, user-to-document interactivity is not about using "interactive" media like Google or Instant Messenger as much as it is about a process in which audiences play a creative role in the production of media content, inputting their personal experiences and reading others' experiences (Landlow, 2006). Since customer engagement is critical to mutual communication in social media, the emergence of online reviews has presented an unprecedented opportunity for genuine interaction between tourism proprietors to consumers as well as from consumers to other consumers (Pantelidis, 2010).

Summary

Technology and the ever-growing accessibility of the internet has greatly expanded the choices available to today's travelers, and this should be used to the advantage of the winery owner or destination marketer. However, since minimal research has been conducted in the area of wine tourism and the influences of technology, few empirically valid recommendations can be made to winery owners or destination marketers at this time. If it can be better understood how travelers are utilizing technology to plan and participate in their travel planning behaviors, then more effective marketing strategies may be employed to increase visitor attendance. As previously stated, wineries that utilize this research can become more financially viable, are then more capable of contributing to the local economy (Dodd, 1995), and thus promote economic growth within rural communities.

III. METHODOLOGY

Introduction

The question presented for this study is the following: How do online technology and mobile devices influence winery tasting room visitors' planning behavior and overall trip experience? The objective of this research is to identify the trip planning behaviors of people who visit winery tasting rooms.

The study included the following steps: (1) arrangements for conducting the study; (2) selection of subjects; (3) development of instrumental approaches; and (4) treatment of data.

Arrangements for conducting the study

The study was conducted through an online survey created within the Qualtrics Insight Platform. Participants were intercepted at one of the 20 participating winery tasting rooms in Minnesota and Wisconsin States during the months of July, 2015 to September, 2015. Participants voluntarily agreed to complete the online survey by providing an e-mail address.

Selection of subjects

Winery owners in Minnesota and Wisconsin were informed of the nature of the study. The selection of wineries to participate in the study was based on the following criteria: (1) owned an existing tasting room; (2) open to tasting room visitors during the study timeframe; (3) location (a representative geographic distribution was sought); and (4) winery size (a representative distribution of winery size was sought).

Each winery owner and/or tasting room manager was consulted to determine the most effective location to place the participant e-mail sign-up sheet, information about the study, and voluntary consent form (Appendix A). Materials for participant e-mail collection were hand delivered to the majority of participating wineries, the remainder were mailed with follow-up phone calls made. Detailed instructions on obtaining e-mail addresses were given orally as well as in writing.

A convenience sampling method was used. Tasting room visitors volunteered to take the online survey when viewing the sign-up information, which explained the nature of the study. Participant e-mail addresses were collected and these lists were mailed, emailed, or faxed by winery owners on a

weekly basis. Once received, the online survey was e-mailed via a link to participants, which directed them to the online Qualtrics survey website. A reminder email was sent a week later, and a final email reminder a week after that (see appendix B). Incomplete, partial surveys were automatically added to the data set after three months' time.

Development of instrumental approaches

The survey instrument is adapted from a previous 2012 Northern Grapes Project pilot study of Michigan tasting room visitors. The 2015 survey was updated and slightly improved, based upon lessons learned in the Michigan tasting room survey. To the extent possible, survey instrument items were kept the same for both Minnesota and Wisconsin, leading to comparable results for all three states.

In the survey instrument (Appendix A), respondents were presented with questions about their use of technology during the planning process for their overall trip, during which they visited a winery, as well as their online behavioral habits. Respondents received a list of information sources as part of the questionnaire and were asked to signify the importance of those they used to plan their trip to the wine region as well as the winery prior to the arrival at their

destination. Trip planning information sources in the questionnaire included online sources as well as traditional information sources (e.g. brochures, road signs etc.). Devices used for planning, booking, navigation and usage during the trip that were also included in the questionnaire.

The questionnaire included questions related to social networking use during travels and online reviews. Respondents that did post a review about their trip were asked about which business they had reviewed. Respondents were also asked which social media website they use most often (e.g. Facebook, TripAdvisor, Yelp, Instagram, etc.). Additional questions in the questionnaire included trip characteristics, wine consumption, spending behavior, and demographics.

In order to measure the behavioral importance factors of Internet and traditional media sources, five point Likert rating scales were used (defined as 1- Not at All Important, to 5- Extremely Important). To measure the extent that a device was used, respondents were requested to answer on four-point scales (defined as 1 - Not at All, to 4 - To a Great Extent).

Treatment of data

Data collected from the online survey instrument were downloaded from Qualtrics, compiled and cleaned in Excel, then

uploaded to Statistical Package for the Social Sciences (SPSS) where both systematic and random errors were corrected. Missing data were assigned by missing type. Questions that were seen by the respondent but left unanswered received a missing code (-99). The gathered data were grouped, tabled, and organized. Frequency and percentage were included in all the tables. Descriptive analyses were run, and multiple cross tabulations were conducted in keeping with the exploratory focus of this study.

IV. RESULTS

Introduction

The focus of this study was on the question: how do online technology and mobile devices influence winery tasting room visitors' planning behavior and overall trip experience? Data analyses were conducted to address various aspects of this question. The results of these analyses are presented in this chapter organized under the following headings: (1) data-gathering instrument distribution, (2) profile of respondents, (3) trip planning behavior, (4) online planning behavior, and (5) cross tabulation analysis.

Data-Gathering instrument distribution

The population of prospective subjects for the study consisted of people visiting one of the 20 participating winery tasting rooms in the states of Wisconsin and Minnesota between the months of June and November, 2015. Visitors intercepted at the winery's tasting room received an online survey after submitting their e-mail address while at a participating winery. Each person received an invitation by email to fill out the online survey and two subsequent reminder emails if they had not already completed the study. The response rates of this online survey mailing are presented in Table 1.

Table 1. E-mail Response Rate by State and Region

WINERY	Total Sample #	Total bounced #	Total received #	Raw response rate	Effective response rate
Wisconsin					
R4W1	29	4	16	55.2%	64.0%
R4W2	92	12	47	51.1%	58.8%
R2W3	12	6	3	25.0%	50.0%
R5W4	20	2	6	30.0%	33.3%
R2W5	53	10	20	37.7%	46.5%
R2W6	50	5	19	38.0%	42.2%
R3W7	31	0	15	48.4%	48.4%
R4W8	39	4	22	56.4%	62.9%
R5W9	26	4	6	23.1%	27.3%
R5W10	29	4	11	37.9%	44.0%
R3W11	41	2	25	61.0%	64.1%
R5W12	46	4	23	50.0%	54.8%
R4W13	109	19	56	51.4%	62.2%
WISCONSIN TOTAL	577	76	269	46.6%	53.7%
Minnesota					
R1W14	322	50	138	42.9%	50.7%
R1W15	131	17	68	51.9%	59.6%
R2W16	53	4	27	50.9%	55.1%
R1W17	33	4	15	45.5%	51.7%
R1W18	32	4	12	37.5%	42.9%
MINNESOTA TOTAL	571	79	260	45.5%	52.8%
COMBINED TOTAL	1,148	155	529	46.1%	53.3%

A combined total of 1,148 e-mail addresses were collected in Wisconsin and Minnesota. Of the 1,148 e-mail addresses collected, 155 (13.5%) were invalid e-mail addresses and the respondent could not be reached. The e-mailed survey yielded a return of 269 surveys (53.7% response rate) from e-mails collected at 15 wineries in Wisconsin, and 260 surveys (52.8%)

from e-mails collected at five wineries in Minnesota. A total of 531 surveys that were completed, two (>.3%) surveys were rejected due to no data recorded, leaving 529 valid surveys completed as the population sample.

Profile of respondents

Basic information regarding demographics and trip characteristics was collected to better characterize the respondents. The combined results are reported for both states. Nearly all of the participants were from the United States (99.2%), with 45.6% from Minnesota, 34.6% from Wisconsin, and 19.8% from 27 other states. There were four international visitors (.8% of the sample); two were from Canada, one was from Mexico, and one was from Spain. Residence demographic information can be found in Tables 2.

Table 2. Residence of Respondent

State	AZ	CA	CT	FL	HI	IA	IL	IN	MA	MI	MN	MO
N	3	3	1	6	1	4	41	2	1	8	237	1
Percent	0.6	0.6	0.2	1.2	0.2	0.8	7.9	0.4	0.2	1.5	46	0.2
State	MS	MT	NC	ND	NE	NJ	NM	NY	OH	ONT	OR	RI
N	2	1	2	7	3	1	2	1	1	1	1	1
Percent	0.4	0.2	0.4	1.3	0.6	0.2	0.4	0.2	0.2	0.2	0.2	0.2
State	SD	TN	TX	VA	WA	WI	Total					
N	1	2	3	2	1	180	520					
Percent	0.2	0.4	0.6	0.4	0.2	35	100					

The average age of the respondents was 48 years old, and 73% were female. Nearly half (49.4%) of respondents have an annual gross household income of \$70,000 dollars or more. The majority of respondents (96.3%) are Caucasian, and 72.1% are married or have a domestic partner. Almost two-thirds (65%) of the respondents had earned a degree at the Bachelors level or higher. Demographic information can be found in Table 3.

Table 3. Age, Gender, Income, Ethnicity, Marital Status, and Education of Respondents

Variable	Category	N	% Responded
Age Group	30 and Under	100	18.9
	31 -40	80	15.2
	41 -50	90	17.0
	51 -60	143	27.0
	61 and Over	116	21.9
	Total	529	100.0
Gender	Male	140	26.7
	Female	385	73.3
	Total	525	100.0
Gross Household Income	Less than \$50,000	105	21.1
	\$50,000 - \$70,000	147	29.5
	More than \$70,000	246	49.4
	Total	498	100.0
Ethnicity	Caucasian	498	96.3
	Hispanic, Latino, Spanish	10	1.9
	Black/ African American	3	0.6
	Other Asian	3	0.6
	Other	2	0.4
	American Indian	1	0.2
	Total	517	100.0

Table 3 Cont'd			
Marital Status	Married or Domestic Partner	372	72.1
	Single, never married	91	17.6
	Divorced	40	7.8
	Widowed	11	2.1
	Separated	2	0.4
	Total	516	100.0
Highest level of Education Completed	College graduate/professional	210	40.4
	Post-graduate	128	24.6
	Some college	96	18.5
	Two-year/ technical school	50	9.6
	High school	36	6.9
	Total	520	100.0

Trip planning and trip behavior

To better understand the nature of wine tourism and trip behavior in Minnesota and Wisconsin, information relating to the trip planning and trip behavior of the participants was collected. Respondents indicated that the most common primary purpose for their overall trip to the area was to have a vacation or weekend getaway in the area (30.8%). As shown in Table 4, visiting friends and relatives (22.2%) and visiting wineries (20.2%) were the next two most common reasons for travelling to the area.

Table 4. Reported Primary Trip Purpose to the Area

		Frequency	Valid Percent
Primary Purpose of Visit to The Wine Region/ Winery	Business trip	7	1.3
	Visiting wineries	106	20.2
	Family event	45	8.6
	Visiting friends or relatives	117	22.2
	Vacation/Weekend getaway	162	30.8
	Shopping trip	16	3.0
	Passing through	19	3.6
	Other	45	8.6
	Local resident	9	1.7
	Total	526	100.0
Total		529	

Almost half (45.4%) of the respondents regarded visiting wineries as somewhat or very important to their decision to travel to the area as seen in Table 5, and a large number (27.4%) of wine tourists reported visiting wineries as the only reason. Only 30.8% of respondents that stayed overnight regarded visiting wineries as somewhat or very important to their decision to travel to the area as seen in Table 6. While more than half (54.3%) of respondents that spent a day trip regarded visiting wineries as somewhat or very important to their decision to travel to the area as seen in Table 7.

Table 5. Winery Importance in Decision to Travel to The Destination

Area/ Region

		Frequency	Valid Percent
Winery's Importance to Visit Destination Area/ Region	Of no importance	69	13.2
	Not very important	73	14.0
	Somewhat important	145	27.8
	Very important	92	17.6
	It was the only reason for the trip	143	27.4
	Total	522	100.0

Table 6. Winery Importance in Decision to Travel to The Destination

Area/ Region for Overnight Travelers

		Frequency	Valid Percent
Winery's Importance to Visit Destination Area/ Region (Overnight Travelers)	Of no importance	37	18.0
	Not very important	40	19.5
	Somewhat important	65	31.7
	Very important	43	21.0
	It was the only reason for the trip	20	9.8
	Total	205	100.0

Table 7. Winery Importance in Decision to Travel to The Destination

Area/ Region for Day Trip Travelers

		Frequency	Valid Percent
Winery's Importance to Visit Destination Area/ Region (Day Trip Travelers)	Of no importance	32	10.1
	Not very important	33	10.4
	Somewhat important	80	25.2
	Very important	49	15.5
	It was the only reason for the trip	123	38.8
	Total	317	100.0

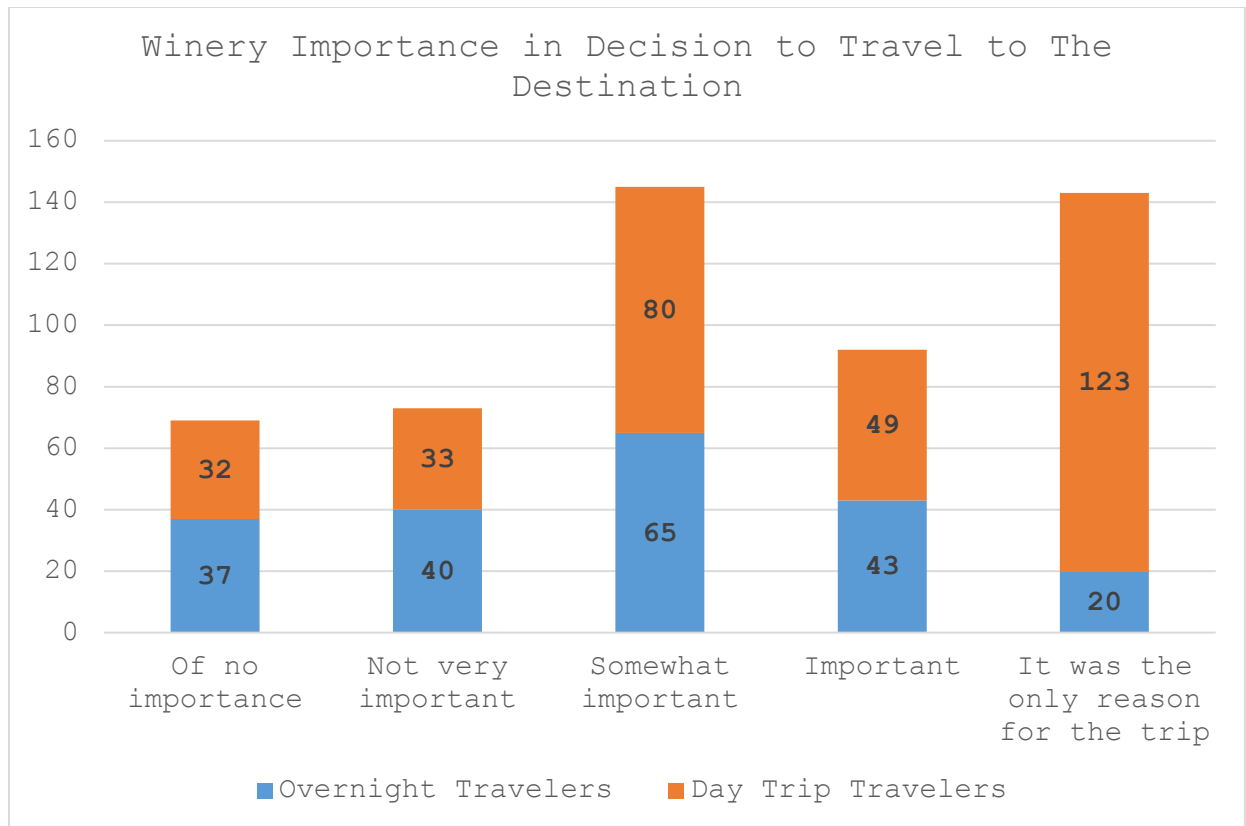


Figure 3. Winery Importance in Decision to Travel to The Destination

Figure 3 further illustrates the differences between overnight visitors, day trip visitors, and the overall importance of the winery had on trip planning to the area

As can be seen in Table 8, over half of respondents (59.4%) spent seven days or less planning their trip to the destination region prior to traveling. Over a quarter of the respondents (27%) spent only a day planning their trip, while 31.4% took a week or less to plan their trip. The average traveling party size was 2.4 people, and 95.2% of travelers used a privately owned vehicle to travel to the destination from their home or

second home. An average of 1.94 wineries were visited during the overall trip by respondents, and an average of \$441 dollars per spending unit¹ was reported being spent on respondents' trips (including spending on lodging, dining, etc....)

Table 8. Planning Time Spent Prior to Travel

		Frequency	Valid Percent
Planning Time	1 day	142	27.0
	1 week	165	31.4
	1 month	124	23.6
	2 - 6 months	79	15.0
	7 - 12 months	11	2.1
	More than 12 months	5	1.0
	Total	526	100.0

As shown in Table 9, the majority of participants (61.2%) indicated that they visited the area and the winery(s) during a day trip and did not spend the night in the area compared to 38.8% of respondents whose travel plans were part of an overnight trip. Of those respondents whose travel plans included overnight stays, 62.5% utilized some form of commercial lodging. Nearly a third (32.5%) stayed at a hotel or motel, while 30.5% spent the night at a friends or relative's house (Table 10). Only 5.9% of respondents spent the night at their

1 A spending unit might include only you if you are traveling alone. Most often, it will include a single family or couple. A full travel party might include several spending units. For example, two couples traveling together would likely include two spending units.

second home.

Table 9. Type of Trip

		Frequency	Valid Percent
Type of Trip	Part of an overnight trip	205	38.8
	Day trip	324	61.2
	Total	529	100.0

Table 10. Type of Lodging Used as Part of an Overnight Trip

		Frequency	Valid Percent
Type of Lodging	Hotel / Motel	66	32.5
	Rented Home / Condo	8	3.9
	Friend / Relative's Property	62	30.5
	Resort	21	10.3
	Camping	17	8.4
	Your Second Home	12	5.9
	Bed & Breakfast	15	7.4
	Other	2	1.0
	Total	203	100.0
	Total	205	

Online planning behavior

Respondents were asked which information sources were most important when planning their trip to **the destination area/region**. Respondents indicated in Table 11, that conversations with friends and family were the most important (3.59 mean) while the winery or wine trail website were considered the

second most important information source used (3.05 mean) to plan their trip to the destination area/ region.

Conversations with friends and family were the most important information source (3.41 mean) to respondents when planning their trip to visit **the winery**, which is indicated in Table 12. The winery or wine trail website was also considered the second most important information source used (2.92 mean) to plan their trip to the winery.

Table 11. Information Source's Importance in Planning Trip to destination area/ region

		Mean
Information Source Reported Importance	Winery/ wine trail website	3.05
	Des. tourism website	2.52
	Online social network	2.21
	Online reviews	2.16
	Online blog	1.84
	Conv. with friend/ relative	3.59
	Previous experience there	3.31
	Paper brochure	2.40
	Road sign billboard	2.31
	Magazine article	2.07
	Radio TV advertisement	1.98

(Average mean based on 5-point importance scale)

Table 12. Information Source's Importance in Planning Trip to Winery

		Mean
Information Source Reported Importance	Winery/ wine trail website	2.92
	Des. tourism website	2.36
	Online social network	2.14
	Online reviews	2.15
	Online blog	1.74
	Conv. with friend/ relative	3.41
	Previous experience there	3.15
	Paper brochure	2.31
	Road sign billboard	2.23
	Magazine article	1.92
	Radio TV advertisement	1.86

(Average mean based on 5-point importance scale)

Respondents indicated in Table 13 that desktop or laptop computers were used to the greatest extent (2.67 mean) compared to other devices; however, smart phones were used almost to the same extent as desktop and laptop computers (2.51 mean) for trip planning. As can be seen in Table 14, the devices used to book or reserve travel most often are desktops or laptops (1.88 mean). Smartphones were used almost to the same extent (1.80 mean). For planning during the trip in Table 15, smartphone devices were used to the greatest extent (2.76 mean), with telephone calls ranked second (1.66).

Table 13. Devices Used to Plan Trip

	Desktop/Laptop	Smart Phone	Tablet	Telephone Calls	Other
Mean	2.67	2.51	1.85	1.45	1.2
N	488	468	465	463	184

(Average mean based on 4-point scale)

Table 14. Devices Used to Book or Reserve Travel Product or Service

	Desktop/Laptop	Smart Phone	Telephone Calls	Tablet	Other
Mean	1.88	1.80	1.52	1.48	1.13
N	508	494	496	459	240

(Average mean based on 4-point scale)

Table 15. Devices Used During Trip

	Desktop/Laptop	Smart Phone	Tablet	Telephone Calls	Other
Mean	1.57	2.76	1.54	1.66	1.09
N	464	476	461	464	242

(Average mean based on 4-point scale)

Respondents were asked a supplemental follow-up question about why they viewed a winery website if they had selected “Important” or “Extremely Important” when using a winery or wine trail website to plan their trip (Table 11 and 12). Results from this question, as shown in Table 16, show almost a third (31.6%) of the respondents searched for basic content (e.g., hours of operation, location, phone number), while 19.8% of respondents searched for services offered at the winery such as wine tours, special events, or cooking classes.

Table 16. Website Content Searched

		Responses
		Percent
Content Desired	I did not view an online winery website	9.6
	Basic Content (hours, location, phone number)	31.6
	Current list of wines available	12.8
	Winery ambiance atmosphere	14.6
	Promotions offers available (onsite savings or specials)	11.6
	Services offered (wine tours, special events, cooking classes)	19.8
Total		100.0

Over half of respondents (54.3%) used a global positioning service (GPS) device or GPS application on a smart phone to navigate from their home or second home to the wine area and winery. Just over a quarter of respondents (26.0%) used road signs and/ or billboards to navigate to the wine region, and during their trip to a winery as seen in Table 17.

Table 17. Devices Used to Navigate to Destination Area/ Region, and During Their Trip

		Responses
		Percentage
Devices Used to Navigate	GPS/ Smartphone GPS App	54.3
	Wine Trail Map	12.3
	Road Signs/ Billboards	26.0
	Map you printed yourself	8.9
	General Tourism Brochure	12.4

Table 18 shows that almost half of respondents (48.5%) posted to a social network website about their overall trip, and a total of 43.7% of respondents posted to a social network website specifically about the winery visited (Table 19). The social network website Facebook was used on a regular basis by 48.2% of respondents as indicated in Table 20. The travel review website, TripAdvisor, was the second most used social media website on a regular basis by respondents (12.6%).

Table 18. Posted to a Social Network Website about any aspect of trip

		Responses
		Percent
Posted	Yes	48.5
	No	51.5
	Total	100.0

Table 19. Posted Something about Winery to a Social Network Website

		Responses
		Percent
Posted	Yes	43.7
	No	56.3
	Total	100

Table 20. Social Websites Used on a Regular Basis

Social Networks		Responses
		Percent
	Facebook	80.4
	TripAdvisor	11.9
	Instagram	18.1
	None	2.4
	Twitter	4.2
	Yelp	21.0
	Blogs	11.9
	Tumblr	1.6
	Foursquare	15.1
	Total	166.7

Only 7.2% of respondents wrote an online review about any aspect of the trip as shown in Table 21. Of those respondents who did state they had written an online review, a follow-up question was asked to determine about which businesses the respondent reviewed. These data are displayed in Table 22. Roughly a third of those who posted a review (33.8%) did so about the winery visited, while a little over a quarter (26.5%) of wrote a review about the lodging used on the trip.

Table 21. Wrote Online Review About any Aspect of Trip

		Responses
		Percent
Posted Reviews	Yes	7.2
	No	92.83
	Total	100

Table 22. Business Reviewed Online

Business		Responses
		Percent
Business	Lodging	51.4
	Restaurant	40.0
	Winery	65.7
	Other Tourism Attraction	25.7
	Retail Store	8.6
	Other	2.9
	Total	194.3

Table 23. Reasons for Posting Online Reviews

	Responses					
		Positive	Negative	Have Time	Business Requests Feedback	Receive a Discount
	Mean	3.96	3.43	3.93	3.30	3.44

(Average mean based on 6-point scale)

As can be seen in Table 24, 16.7% of respondents who used social online reviews in trip planning found the reviews important or extremely important to their decision to visit the **wine region**. Roughly 19.7% of the respondents found online reviews important or extremely important to their decision to visit the **winery**, as can be seen in Table 25.

Table 24. Importance of Online Reviews in the Decision to visit Wine Region

		Responses
		Valid Percent
	Not at all important	48.1
	Not important	8.9
	Neutral	26.2
	Somewhat important	12.5
	Extremely Important	4.2

Table 25. Importance of Online Reviews in the Decision to visit a specific Winery

		Responses
		Valid Percent
	Not at all important	53.4
	Not important	4.1
	Neutral	22.8
	Somewhat important	13.2
	Extremely Important	6.5

Cross tabulation analysis

To identify differences between technology users, the results of selected cross tabulations are provided in this section. Those respondents who placed an importance (important or extremely important) on online reviews to plan their trip to the wine region spent an average of \$609 dollars on total trip spending per spending unit and visited 2.35 wineries on average during the trip, as shown in Table 26. By comparison,

respondents who placed an importance (important or extremely important) on online reviews to plan their trip to the winery, spent an average of \$547 dollars on total trip spending per spending unit and visited 2.49 wineries on average during the trip. Respondents who placed an importance on online reviews to trip plan, spent more than the respondents who did not use online reviews (\$432). In addition, those who placed an importance on online reviews visited more wineries than the respondents who did not use online reviews (1.82 mean).

Table 26. Importance of Online Reviews Compared to Total Trip and Wine Spending, and Number of Wineries Visited

	Responses			
	Total Trip Spending	Average # of Bottles Purchased	Average Price Paid Per Bottle	Wineries Visited
Importance of Online Reviews to Visit Wine Region	\$609	4.94	\$15.63	2.35
Importance of Online Reviews to Visit Winery	\$547	5.03	\$15.86	2.49
Respondents Who Did Not Use Online Reviews	\$432	5.09	\$15.78	1.82

Table 27 illustrates that more people in the age category of 41-50 year-old posted an online review (9.9%) compared to other groups. The 31 -40 age category was the second largest

group to post an online review (7.7%). People over 60 are less likely to post reviews (4.4%). In addition, the age category of 41-50 year-old spent more money overall on wine (\$87.13) on average compared to other groups.

Table 27. Online Social Review Posts and Total Wine Purchased
Categorized by Age Groups

Age Groups		Posted Online Review	Total Spent on Wine
		Percent	
	30 and Under	7.4	\$50.97
	31 -40	7.7	\$83.63
	41 -50	9.9	\$87.13
	51 -60	7.4	\$79.77
	61 and Over	4.4	\$82.86

The results in Table 28 indicate that the 142 respondents who planned their trips only one day in advance spent \$154 in total trip spending on daytrips, and \$478 in total trip spending on overnight trips. Over half of overnight travelers who planned their trips one day in advance paid for lodging on the trip rather than staying with friends or relatives or in a second home. A week in advance was the most common time horizon for planning travel. This group spent less over the course of their trips than those who spent one day planning their trips. This, however was only true for overnight travelers. However, more of the group that planned their trips one-week in advance

(63.3%) paid for lodging compared to those who planned their trips a day in advance. These results generally suggest that respondents with longer trip planning horizons tend to spend more on their trips than those with shorter trip planning horizons.

Slight differences were found by comparing nights spent away from home and planning time. Respondents who spent an average of 2.4 nights away from home started planning their trip a week in advance. Respondents who spent an average of 3.4 nights away from home began planning their trip a day in advance. Respondents who spent an average of 3.5 nights away from home had a longer planning horizon of one month. Respondents who spent an average of 3.8 nights on their trip began planning their trip 2-6 months in advance.

Table 28. Trip Planning Horizon Groups Compared to Total Trip Spending and Percentage of Overnight Paid Lodging

	Planning Time			
	1 Day	1 week	1 month	2-6 months
Day Trip Number (N)	103 (33%)	109 (35%)	77 (25%)	25 (8%)
Overnight Trip Number (N)	39 (20%)	56 (29%)	47 (24%)	54 (28%)
Day Trip - Total Spent	\$154	\$241	\$521	\$490
Overnight Trip- Total Spent	\$478	\$412	\$607	\$1,054
% of Total Paid for Overnight Lodging	51.3%	63.6%	57.4%	75.5%
Nights Spent Away from Home	3.4	2.4	3.5	3.8

V.DISCUSSION

Introduction

The purpose of this exploratory research study was focused on enhancing understanding of consumer preferences in order to develop improved marketing strategies for wineries. Specifically, the study sought to gain an understanding of tasting room visitors' trip planning behaviors and the influence current technology has on their trip planning behavior.

The subjects of the study consisted of 529 tasting room visitors who visited a winery tasting room at one of the 20 participating wineries between the months of July, 2015 and September, 2015. Participating subjects completed an online survey instrument that included sections on technology usage and behavior, trip characteristics, wine consumption, spending behavior, and demographics. The data for the study were collected during the months of August and September, 2015.

The data were cleaned and then analyzed using SPSS. Descriptive findings and cross tabulation analyses were used to assess differences in respondents' profile characteristics, trip planning behavior, online planning behavior, and technology use. In order to extrapolate from the existing evidence regarding search behavior theory (Berkman and Gilson, 1986) and tourism

planning stages (Karanasios et al., 2015) in online travel and trip planning, three main trip planning phases will be addressed in this chapter: pre-trip, during trip, and post-trip phases.

A discussion of the data is presented in this chapter according to the following topics: (1) trip planning phases: findings and managerial implications and recommendations, (2) result comparisons to existing literature, and (3) limitations.

Trip planning phases

Pre-trip planning phase

Data analysis revealed the following findings about participants' trip planning behavior before travelling to their destination. This section includes information on trip research, booking, and reserving, as well as the devices used to search for information.

1. Smartphones are used almost to the same extent as desktop or laptop computers to research, book, and reserve a trip to a wine region and winery.

Mobile technology involves multi-faceted devices that users rely on for day-to-day activities. Mobile technology also appears to be pivotal in travel planning to research and book travel. The dominant role desktop and laptop computers play in

trip planning have shifted as the use of smartphones in travel planning increases (Wang et al., 2014). This trend can be attributed to the ubiquity and portability of mobile technology as well as the various features and functionalities supported by context aware systems (Gavalas and Kenteris, 2011).

Wang et al., (2014) found that respondents planned trips during breaks at work and shopped for and bought flight tickets during lunchtime on mobile apps. Additionally, respondents used smartphones before their trips to monitor flight prices, search for deals at destinations, and plan for accommodations.

Because of this, it is highly recommended that winery owners create an online website (if they haven't already). But more importantly, winery owners should ensure their websites are mobile friendly so that content and images are displayed correctly on hand-held devices such as smartphones, iPhones, iPads, and tablets.

Also, adapting website content to a mobile-friendly layout allows the webpage to load faster and will make written content easier to read. This requires basic content such as address, phone number, and hours of operation. This information should be easily accessible when viewing the webpage, and services offered or upcoming events should be up to date. Including

pictures of the winery so visitors can gain perspective on the winery's layout and atmosphere can also be beneficial in aiding travelers during their trip planning stage.

2. Over half of all travelers are using short planning horizons of a week or less and are primarily using online compatible devices to research their trip.

With the increase of and accessibility to online planning tools, the length of trip planning may become shorter. Travel decisions can be made while *en route* and booking cycles will become increasingly shorter (Gretzel et al., 2006). Winery owners can take advantage of this short planning timeframe by sending "last-minute trips" or "weekend getaway" email blasts, posting information on their social media websites, and posting on local visitor bureau's websites. If possible, winery owners should take advantage of last minute couponing deal websites such as Groupon.

A considerably large percentage of respondents from this study took day trips to the wine region (62%) compared to those who spent at least one night in the wine region. However more than half of both daytrip travelers and overnight travelers spent a week or less planning their trip to the wine region. Additionally, overnight travelers that made last minute plans

(one day), still spent a considerable amount of money during their trip. Over half of overnight travelers who planned their trip in less than one day used commercial lodging, for example.

The above finding indicates that although travelers are taking less time to plan their trip, they are continuing to spend significant sums of money on products and services at the winery and at other nearby businesses. Over half of visitors are spending nights away from home and making last minute lodging reservations.

Because of this, it is recommended that winery owners collaborate with local hotels and/ or bed and breakfast lodging as well as restaurants to offer packaged deals to potential travelers. Collaborative marketing campaigns should incorporate recommended places to stay and eat in the area and announce any possible package discounts via email blasts. Additionally, they should encourage lodging and restaurant partners to advertise both online and onsite about the winery and any special events or services offered at the tasting room.

During-trip planning phase

The analysis of the data revealed the following findings about participants' planning behavior during their trips, including travel to and from their destinations. This section

includes information on the devices used for navigation during the trip, as well as interaction with social networking websites.

3. GPS and smartphone with GPS apps are the most important device used to navigate during a trip. And, smartphones are the most used device during a trip.

Roughly 66.3 million people rely on smartphones for maps/GPS navigation in the United States (Statista, 2016). In this study, over half (54.3%) of respondents relied on GPS or smartphone GPS apps for navigation. This usage includes local travel to and from the primary residence as well as for travelling throughout the tourism destination. It is extremely important that 4G mobile connection be made available to travelers navigating to a winery. If 4G is not available, the winery owner or wine associations work with local government to request that cell phone providers offer access in the area. The overall trip spending of tasting room visitors (\$441 per spending unit) can be used to support efforts to convince policy makers to prioritize this investment. If 4G is not accessible, a short term recommendation would be to have appropriate signage clearly labelled with directions to the winery. In this study, respondents indicated that road signs and/ or billboards were the second most used source (26.0%) for navigation.

Additionally, it is recommended that wineries ensure the accuracy of their listings on the major map systems used by GPS providers (e.g., Apple maps and Google maps) and provide as much information (address, phone, hours of operation) as possible. These services are free and highly recommended, as many travelers use mapping services, which are typically provided on smartphones to navigate.

4. Almost half of all travelers post to a social network site from a mobile device about their trip and winery visit.

Study results indicate that 48.5% of respondents posted to a social networking website about their trip. Posting to social network websites such as Facebook is a part of many peoples' travel experience. This is in part because tourists are able to instantly share travel experiences with their social networks via mobile social media (Wang, Park, & Fesenmaier, 2012). These posts and pictures can be considered free marketing for wineries. To help facilitate the number of their visitors' posts, it is highly recommended that wineries offer a free and easy to use dedicated Wi-Fi network to their visitors to allow them to post directly about their experience onsite at the winery. Since most tasting rooms are small in size, the cost to winery owners will be minimal for maintaining high speed internet for guests. Creating an interesting and dedicated area

or areas just for photo opportunities available onsite can be another way wineries can increase the number of posts. Creating hashtags (example: #wineryname) can further increase online visibility. Additionally, it is recommended that wineries ensure the accuracy of their listings on the major map systems used by GPS providers, update their websites to be mobile friendly, and make sure that 4G service is available in the area.

As previously stated, twenty wineries participated in this study. Table 29 illustrates the online services currently offered at the participating winery partners' tasting rooms. The figure offers some evidence that not all wineries are taking advantage of offering these online services to their visitors. Only four of the wineries offer free Wi-Fi that does not require a password. 4G service is only available at some locations. Roughly half of the participating wineries have created mobile friendly versions of their websites, but only in the last three years. Most of the participating wineries are listed on Google maps, Apple maps, or Navteq Here maps but not all.

Table 29. Available or offered online services accessible to visitors at winery partners

WINERY	Offers Wi-Fi at Winery	4G in Area	Mobile Friendly Website	Year Mobile Website Created or Plan to Create	On Google Maps	On Apple Maps	On Navteq Here Maps
Wisconsin							
R4W1	No	No	No	N/A	Yes	Yes	Yes
R4W2	No	Yes	No	2017	Yes	Yes	Yes
R2W3	No	Yes	No	2016	Yes	No	Yes
R5W4	No	Yes	No	N/A	Yes	No	Yes
R2W5	Yes	No	Yes	2015	Yes	Yes	No
R2W6	No	No	Yes	2015	No	No	Yes
R3W7	No	No	Yes	2015	Yes	Yes	No
R4W8	Yes*	Yes	Yes	2015	Yes	Yes	Yes
R5W9	Yes	Yes	Yes	2016	Yes	Yes	Yes
R5W10	No	No	No	N/A	Yes	No	Yes
R3W11	Yes	Yes	Yes	2012	Yes	Yes	Yes
R5W12	Yes*	Yes	Yes	2013	Yes	Yes	Yes
R4W13	Yes*	No	No	2017	Yes	Yes	Yes
Minnesota							
R1W14	Yes	Yes	No	2016	Yes	Yes	Yes
R1W15	Yes	Yes	Yes	2014	Yes	Yes	Yes
R2W16	Yes*	No	No	N/A	Yes	Yes	Yes
R1W17	Yes*	Yes	Yes	2014	Yes	Yes	No
R1W18	No	No	No	N/A	Yes	Yes	Yes

*Password required

Post-trip planning phase

Findings about the participants' post-trip planning behaviors are reported in this section. It includes information on the importance of online reviews, as well as information about those who typically post online reviews.

5. Those who find online reviews important in trip planning spend more money during their trip and visit more wineries. The majority of travelers use Facebook and a quarter use TripAdvisor and/or Yelp on a regular basis.

This finding indicates that online reviews are an important tool for attracting visitors who would be the most lucrative to wineries and local businesses. Winery owners need to create and maintain an active online presence with websites such as TripAdvisor and Yelp where people search for, post, and interact with online reviews. According to the Nielson Global Consumer Confidence of 2014, an overwhelming 88% of U.S. consumers read online reviews to determine the quality of a business and that 72% of people who view positive reviews about a business trust those businesses more.

More importantly, it is necessary to monitor what is being posted on these sites and to respond to content quickly. Roughly 86% of people in the U.S. report that reading a negative review influences their buying decision (Nielson Global, 2014). Furthermore, online reviews are considered the second most trusted sources of information when making purchase decisions second only to friends and family (CA Security Council, 2015).

Based on TripAdvisor's recommendations for responding to online reviews (2014), it is generally a good idea to respond to reviews quickly, as well as those that involve a factual misstatement. Additionally, it is also a good idea to write about an action the business management has taken to correct problems addressed in the review. Finally, another best practice is to always have a "Management Response" among the ten most recent reviews received about the business. This will help ensure travelers see up to date correspondence in the recent review history.

Research internal to TripAdvisor shows that because the average rating is positive (four or five out of five bubbles) the properties with a higher number of reviews, tend to have higher average ratings (TripAdvisor Insights, 2014). Because of this, it is recommended that winery owners encourage visitors to review their winery, perhaps by linking to review sites directly on their website, placing on-site signage (e.g. TripAdvisor or Yelp logo sticker), and verbally indicating where tasting room visitors can write or view an online review.

6. Tourists 41-50 years old spend more on wine compared to all other tourist age groups and also post the most online reviews.

Surprisingly, millennials are not the primary age group posting reviews online. Older generations who spend more at wineries on wine are also interacting online and writing reviews. An increase in wine marketing research targeted at millennials have been conducted (Thatch and Olsen, 2006). However, results from this study indicate that tourists 41-50 years old spend more on wine compared to all other tourist age groups. Based on these findings it is recommended that winery owners continue to advertise wines broadly to include older visitors (41-50 years old), as they currently spend more money on wine compared to millennials.

Results in comparison to existing literature

As stated in Chapter 2, there are few studies that specifically examine how technology influences the trip planning behavior of wine tourists in the upper Midwest. However, there are studies with which comparisons can be drawn which attempt to profile tourists and the influences of technology on tourism activity.

Similar demographic and travel behaviors were found to be present in both the 2012 pilot study conducted in Michigan and the current study. Differences in the studies include overall trip spending, distance travelled to the wine region, and the

number of travelers that were part of an overnight trip. The participants in the Michigan study spent more money on their total trip, drove longer distances to reach the wine region, and more of these travelers spent the night at the wine region compared the current study. Questions related to the influence of technology were not present in the 2012 Michigan pilot study.

Similar to current findings in this paper, including the importance of online reviews and an increase in total spending, previous research has also revealed that tourists who reportedly use the Internet to gather travel and tourism-related information spend more money on travel and tourism than nonusers (Luo, et al., 2005).

In addition, a recent study by Wang et al., (2014) found that smartphones can be a more effective search tool than desktop computers to look for information regarding transportation, accommodation, dining, things to do during trips, travel ideas, and deals both before and during trips.

Limitations

Several limitations are present that may have impacted the results presented from this study. There is potential for bias in the research sample because tourists from only the twenty

wineries in two states were intercepted. Those who volunteered to participate may be different from those that did not. The research relied on a convenience sample of visitors to these wineries. Due to limited time and resources, it was impossible to intercept tourists at all twenty wineries using other sampling patterns. An additional limitation is that the data were collected during a short time frame- July -September. Because of this, results are only applicable to the late summer wine tourist traffic. Tourists during the summer months may be fundamentally different from those travelling during other months, and the same tourists may have different travel behaviors in different seasons.

Recruiting winery tasting room partners in Wisconsin for this study was not difficult. In fact, Wisconsin wine industry representatives were extremely interested in conducting the project in Wisconsin and were instrumentally helpful during the study planning and implementation phases. But, recruiting winery tasting room partners in Minnesota proved to be more challenging, possibly because the industry in that state is relatively newer with fewer members who produce less wine than is the case in Wisconsin.

The average number of contacts (e-mail addresses) submitted per partner winery did not decline over the months of this

study, as was the case in the Michigan pilot study. However, several wineries stopped sending lists for extended periods of time when the tourist season was peaking. Extra effort was made by the researchers to provide regular communications with participating wineries, as well as providing small gifts, which included candy and snacks designed to maintain partner interest in the project.

A considerably shorter research instrument/questionnaire could have been designed and administered if the sole focus for the study could be simplified to only how technology influences tasting room visitors. However, because this research was part of a larger surveying study funded by the Northern Grapes Project, it was necessary to include additional sections of the survey. However, creating a more focused survey instrument would have made recruiting winery tasting room partners more problematic given the limited relevant information that would have been produced.

Future research

The following recommendations are made for further research in the area of wine tourism and technologies used.

1. The present study could be replicated in similar upper Midwest states over the course of several years to

determine tourism trends, and whether technologies are being used similarly in different states.

2. A study could be conducted during the entire tourism season at wineries to assess seasonality.
3. Further studies could be conducted in the wine tourism field in relation to how technology influences consumer attitudes and their intent to travel.
4. A survey instrument that includes more in-depth questions and answer options could be developed to allow for different analytical procedure, in order to compare a broader range of groups and to predict outcomes that are statistically significant.
5. Further development of the survey instrument is needed in order to include online review usage throughout the course of the trip and how that might affect the travelers' planning behaviors.

Summary

Software apps, social media sources, and the ever-growing accessibility of the internet have greatly expanded the choices available to today's travelers, and this should be used to the advantage of the winery owner or destination marketer.


Technological advances have changed tourists' behavior during pre-trip, during trip, and post-trip planning phases.


Furthermore, tourism organizations cannot ignore the rising popularity of social media sites containing interactive content like reviews and posts, nor the role that these are playing in the trip planning behavior of travelers.

By developing technology based marketing plans that include mobile websites, smartphone apps, social networks, and online reviews, winery owners are likely to more effectively market their wine tasting rooms to a wider population. This may in turn increase tourist numbers (i.e. agriculture tourism), stimulate economic development, and create more employment opportunities for young people and families in rural areas.

APPENDICES

Appendix A: Institutional Review Board Acceptance

MICHIGAN STATE UNIVERSITY	Determined Not "Human Subjects"
11/18/2015	
Rebecca McRoberts Email: jrmcroberts@gmail.com	
Re: Determination of Human Subject Research x15-1235e; Northern Grapes Project: Minnesota and Wisconsin Tasting Room Visitor Profile	
Dear Rebecca McRoberts:	
It has been determined that the activity described in your application to the IRB submitted November 17 th , 2015 does not meet the definition of "human subjects" as defined by the U.S. Department of Health and Human Services (DHHS) regulations for the protection of human research subjects.	
Human Subject For DHHS, "human subject" means "a living individual about whom an investigator (whether professional or student) conducting research obtains: (1) Data through intervention or interaction with the individual, or (2) Identifiable private information." [45 CFR 46.102(f)].	
After reviewing the information you have provided, it has been determined that:	
<input checked="" type="checkbox"/> Living individuals are not involved <input checked="" type="checkbox"/> The activity is not "about" the living individual <input checked="" type="checkbox"/> Will not obtain data through interaction or intervention or private identifiable information	
You have indicated that you will use secondary data that was collected under IRB#x15-400e. The data collected under x15-400e was collected anonymously through Qualtrics.	
Hence, your activity does not involve human subjects.	
Therefore, the federal regulations for the protection of human subjects would not apply to your project and you do not need MSU IRB approval to proceed. However, please note that while MSU IRB approval is not required, other federal, state, or local regulations or requirements or ethical or professional standards may still be applicable based on your activity.	
If any of these circumstances change, please contact the IRB as your activity may involve human subject research and require IRB approval.	
If you have any further questions, please contact the MSU IRB office at 517-355-2180.	
Sincerely,	
	
Rebecca Gore, CIP Institutional Review Board Manager	
c: Daniel McCole	



**Office of Regulatory
Affairs
Human Research
Protection Programs**

Biomedical & Health
Institutional Review
Board (BIRB)

Community Research
Institutional Review
Board (CRIRB)

Social Science
Behavioral/Education
Institutional Review
Board (SIRB)

Olds Hall
408 West Circle Drive
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East Lansing, MI 48824
(517) 355-2180
Fax: (517) 432-4503
Email: irb@msu.edu

MSU is an affirmative-action,
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V14.1

Figure 4. IRB Letter of Acceptance

Appendix B: Survey Instrument

Q51 How important were each of the following to your decision to visit the wine region?

	Not at all Important 1 (1)	2 (2)	Neutral 3 (3)	4 (4)	Extremely Important 5 (5)
Winery/ wine trail website (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Destination's tourism website (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online blog (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online reviews (TripAdvisor, Yelp, etc.) (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online social network (Facebook, Twitter, etc.) (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Paper brochure (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Magazine article (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversation with friend/ relative (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Previous experience there (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio/ television advertisement (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Road sign/ billboard (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q52 To what extent did you use the following devices to research your travels before you departed your home?

	Not at All (1)	Very Little (2)	Somewhat (3)	To a Great Extent (4)
Desktop/ laptop computer (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone call(s) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart phone (to access website/app) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tablet (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q53 How important were each of the following to your decision to visit the winery(s) on your trip?

	Not at all Important 1 (20)	2 (17)	Neutral 3 (18)	4 (19)	Extremely Important 5 (16)
Winery/ wine trail website (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Destination's tourism website (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online blog (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online reviews (TripAdvisor, Yelp, etc.) (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online social network (Facebook, Twitter, etc.) (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Paper brochure (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Magazine article (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conversation with friend/ relative (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Previous experience there (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio/ television advertisement (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Road sign/ billboard (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer If How important were each of the following to your decision to visit the winery(s) on your trip? Winery/ wine trail website - 4 Is Selected Or How important were each of the

following to your decision to visit the winery(s) on your trip? Winery/ wine trail website - Extremely Important
5 Is Selected Or How important were each of the following to your decision to visit the wine region? Winery/ wine trail website - 4 Is Selected Or How important were each of the following to your decision to visit the wine region? Winery/ wine trail website - Extremely Important
5 Is Selected

Q54 Which of the following are reasons why you visited a winery's website? (Please check all that apply)

- ☐ I did not view an online winery website (1)
- ☐ Basic Content (hours, location, phone number) (2)
- ☐ Current list of wines available (3)
- ☐ Winery ambiance/ atmosphere (4)
- ☐ Promotions/ offers available (onsite savings or specials) (5)
- ☐ Services offered (wine tours, special events, cooking classes) (6)

Q55 To what extent did you use the following devices to book or reserve your travel for this trip?

	Not at All (1)	Very Little (2)	Somewhat (3)	To a Great Extent (4)
Desktop/ laptop computer (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone call(s) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart phone (to access website/app) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tablet (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q57 How important were each of the following in helping you (or your party) to navigate during your trip?

	Not at all Important 1 (1)	2 (2)	Somewhat Important 3 (3)	4 (4)	Extremely Important 5 (5)
GPS or smart phone GPS app (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wine trail map (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Road signs/ billboards (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Map you printed yourself (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General tourism brochure for area (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prior knowledge of area (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q58 During your trip, did you post to a social networking site about any aspect of your trip (e.g., Facebook, Twitter, Instagram, Foursquare, etc.)?

- ☐ Yes (1)
☐ No (2)

Q59 During your trip, did you post to a social networking site about your experience at wineries (e.g., Facebook, Twitter, Instagram, Foursquare, etc.)?

- ☐ Yes (1)
- ☐ No (2)

Q60 During your trip, did you write an online review about any aspect of your trip (e.g., on TripAdvisor, Yelp, etc.)?

- ☐ Yes (1)
- ☐ No (2)

Answer If During your trip, did you write an online review about any aspect of your trip (e.g., on TripAdvi... Yes Is Selected

Q61 About which of the following types of business did you write an online review? (Select all that apply)

- ☐ Lodging (1)
- ☐ Restaurant (2)
- ☐ Winery (3)
- ☐ Other Tourism Attraction (4)
- ☐ Retail Store (5)
- ☐ Other (6) _____

Q62 We'd like to know more about the reasons you post reviews. Please indicate the level to which you agree or disagree with the following statements: I post online reviews...

	Strongly Disagree (1)	Disagree (2)	Somewhat Agree (3)	Agree (4)	Strongly Agree (5)	Unsure (6)
... if I have a positive experience. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... if I have a negative experience. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... if I have time. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... if a business requests feedback. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... if I receive a discount. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q63 To what extent did you use the following devices during this trip?

	Not at All (1)	Very Little (2)	Somewhat (3)	To a Great Extent (4)
Desktop/ laptop computer (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone call(s) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smart phone (to access website/app) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tablet (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q64 Which of the following social websites do you use on a regular basis? (Please check all that apply)

- ☐ Facebook (1)
- ☐ Twitter (2)
- ☐ Instagram (3)
- ☐ Tumblr (4)
- ☐ Blogs (5)
- ☐ Tripadvisor (6)
- ☐ Yelp (7)
- ☐ Foursquare (8)
- ☐ None of these (9)

Q65 Please answer the following questions to help us further analyze and better understand our results. The information you provide will remain strictly confidential and you will not be identified with your answers.

Appendix C: Winey Partner Correspondences



Northern Grapes Project

Project Goals and Rationale:

New varieties have made possible grape and wine production in cold climates. Varietal performance, specific viticultural and winemaking practices, and marketing/ consumer information are needed to support industry growth and development. Research and outreach will enhance and support growth and development of wineries and vineyards in cold climate regions of the Midwest and Northeast.

There are three areas of study in the Northern Grapes Project which include 30 research and Extension professionals in total. These areas are **Viticulture, Enology, and Economics/Marketing**. 12 Institutions in upper Midwest and Northeast are part of this team, while 20 cooperating winery/ grower associations are also involved.

Anticipated outcomes:

Short term:

- Production and sales of wines made from cold climate cultivars will double over the five year period of the project
- Improved quality resulting from better growing and winemaking practices will improve customer retention and drive sales repeat sales.

Medium to Long term:

- Continued breeding and cultivar evaluation will result in accelerated release of improved cultivars.
- Cold Climate cultivars will establish unique regional marketing identities in their area.

- Wineries will understand and apply business and tasting room management practices that drive sales.
- Wineries and vineyards will transition from 'startup' status to 'sustained profitability'.

For More on the Northern Grapes Project, go to the project website: <http://northerngrapesproject.org/>

Tasting Room Visitor Study

The purpose of this research is to learn more about the visitors to northern tasting rooms. Because most wineries in emerging wine regions depend primarily on tasting room sales for their revenues, the target consumers of the product are often regional consumers or tourists. However, little is known about the consumer demographics and their purchase behavior or attraction to wineries in emerging wine regions. To support effective marketing for tasting rooms, we will develop information on consumers. The findings from the Tasting Room Visitor's study will provide the Wisconsin wine industry with important market research information on the following topics:

- **Wine tasting room visitor behavior and experience** (*Their experience visiting tasting rooms and what they do at the tasting rooms*)
- **Wine knowledge, experience and purchase behaviors of winery visitors** (*How much do they know about wine? How often do they drink wine? What kinds of wines do they like?*)
- **Trip behaviors of tasting room visitors** (*What else do they do on their trips besides visiting tasting rooms? Where do they stay? How much do they spend?*)
- **The economic impact of wine tourism in WI** (*How much travel spending is the result of wine tourism? How many jobs are produced because of wine tourism*)
- **The travel planning behavior of wine tourists** (*When and how do they plan their travels? Where do they get trip information before and during travel?*)
- **Awareness and perceptions of cold hardy grape wines** (*Which cold hardy wines have they heard of? To what extent do they like cold hardy wines?*)

- **How WI wine tourists use technology and the Internet to plan their trips** (*What apps and websites do they use for different stages of their planning? Which devices - computers, tablets, smartphones - do they use for each planning stage?*)
- **The importance of social media and review sites on their travel decisions** (*How social media and consumer review sites impact which wineries, lodging, restaurant, etc. choices they make?*)
- **The impact of tasting room fees on wine purchases** (*How does charging a fee for a tasting affect the purchase of wine at the winery?*)
- **Why visitors purchase wine from tasting rooms** (*How the wine is eventually used - e.g., as gifts, building cellar, for at home consumption? What are their motivations to purchase at the winery?*)

Results

- The comprehensive results to this study will be made available to the all of the participating wineries. We anticipate being able to present these results to the industry at conferences, through extension newsletters, and by publishing in industry-related media.
- Participating wineries will receive a report of the data collected that is **specific to their business** (assuming we get at least 150 completed responses from visitors recruited at their winery). These individualized reports will contain the information from the tasting room visitors intercepted at each winery.

Winery Instructions



Important Dates:

- Project dates: June 1st – October 31st 2015.
- First sign-up sheet return: **June 7th**

What We Need:

- **Weekly contact sheets:** each sign-up sheet should have 15-25 names and email addresses for people willing to complete our 10-15 minute survey.
- **A designated point person:** we would like one staff member to be responsible for ensuring we are sent 15-25 names per week. We will maintain contact with this person throughout the project in order to help with any concerns or problems and to keep the project organized.

Approach to Collecting Volunteers:

- Each week, provide us with 15 – 25 names.
- When asking visitors to volunteer:
 - Explain that they will receive an email with a link to a survey from researchers with the Northern Grapes Project, in the next couple weeks. Also explain that the results of this survey will benefit the Wisconsin wine industry.
 - The survey should take from 10 to 15 minutes to complete
 - Emphasize that there will be a grand prize drawing for a \$100 visa gift card.
 - Thank them on behalf of the Northern Grapes Project, whether or not they choose to participate.
- Please try to generate a participant list that resembles your visitors with regard to attributes such as age, gender, race, travel group size, etc.
 - Please try to collect visitors from **both weekends and weekdays** and from the **tasting counter and cash register**.

- o If there is more than one volunteer from a group traveling together, please only allow one member of that group to sign-up.

Returning Sign-Up Sheets:

Starting June 7th, please send the names to us every week. This can be done via email (scan the list), fax (517-432-3597, Attn: Becky McRoberts), or U.S. postal service (pre-addressed, no postage needed envelopes will be sent to you.)

Contact Us

We appreciate your help with this study and I am here to help in any way that I can!

If, at any time, a tasting room visitor has a question or concern, please feel free to call or email me, or another member of our team directly. Additionally, if you need any additional sign-up materials or envelopes, please let me or my staff know and we will send it over.

Project Coordinator

Becky McRoberts

818.799.6288

mcrobell@msu.edu

Project Assistant

Adie Pregonze

517.432.0289

northerngrapesproject2015@gmail.com

Project Lead

Dr. Don Holecek

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We greatly appreciate your help!



Northern Grapes Project

» Online Survey «

Thank you for your interest in participating in the Michigan Northern Grapes

Improving the quality of wines produced in the region, and to improve visitor satisfaction with tasting room experiences.

Enter your **NAME** and **EMAIL** address below
to receive a short online survey about your
experience at this tasting room

(one email per travel party please)

For comments or questions, please contact us at
NorthernGrapesProject2015@gmail.com



Michigan State University Wine Tourism Research Group
Department of Community Sustainability
Michigan State University, 480 Wilson Road, Room 131, East Lansing, MI 48825



Figure 5. Respondent Interception Stand Artwork

Name	Email Address
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Figure 6. Respondent Interception Sign-Up Sheet

Consent Form

Thank you for your interest in participating in the Tasting Room Visitor research project. Our goals are to improve the quality of wines produced in the region and to improve visitor satisfaction with tasting room experiences.

Your participation is voluntary, and your consent to participate is indicated by completing the survey. You may choose to skip questions that you prefer not to answer and you may discontinue participation at any time. Your responses will be anonymous.

If you have any questions or concerns about this study you may contact the principal investigator: Dr. Don Holecek by email at dholecek@anr.msu.edu or by phone at (517) 432-0295.

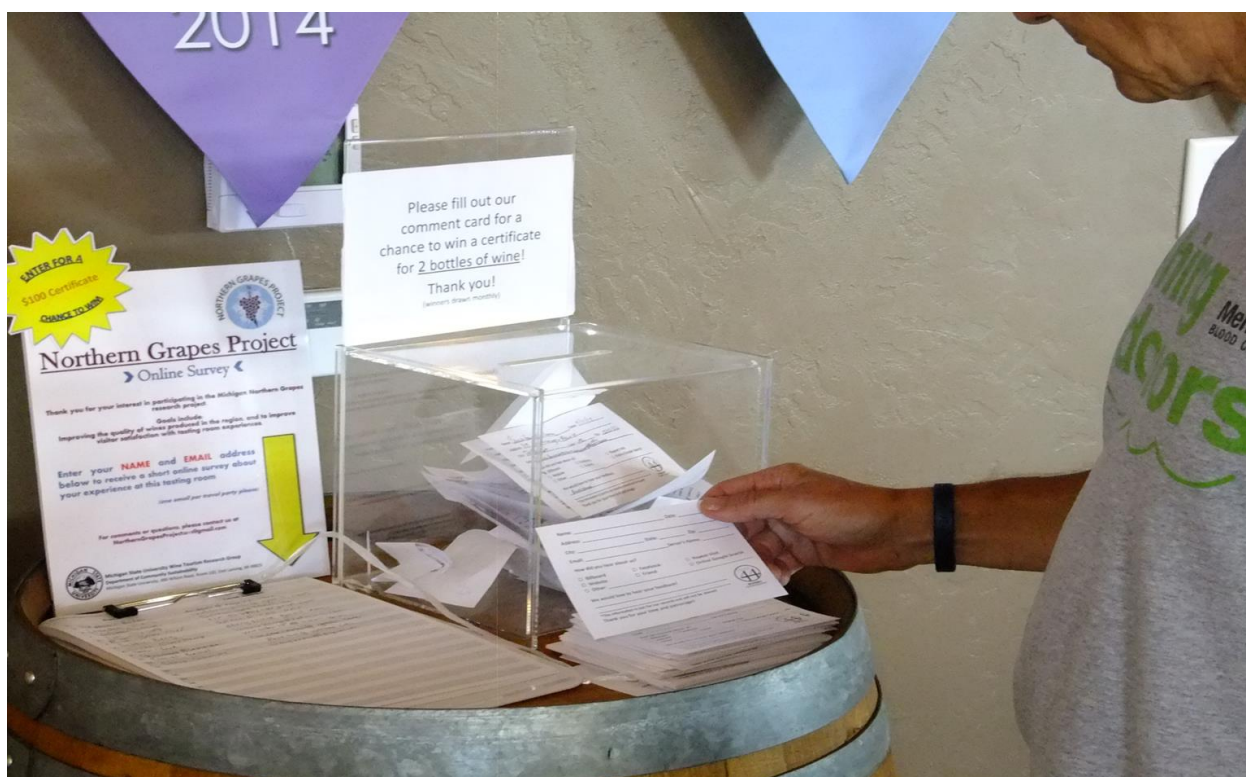


Figure 7. Respondent Interception Example

Appendix E: E-mail Correspondence with Respondents

Initial E-mail to Respondent

Dear \${m://FirstName},

During your recent visit to \${e://Field/Winery%20name} Winery you signed up to participate in the Wisconsin Winery Visitor Study. We appreciate your willingness to help with this important study. The questionnaire should only take 10-15 minutes to complete. As a reminder, for participating in this study, you can be entered into a drawing to **win a \$100 Visa gift card**. There is a place for you to enter the drawing at the end of the survey.

You will receive another email reminder to complete this survey in a week if you haven't completed the survey by that time.

If you have any questions about this survey, please email me at NorthernGrapesProject2015@anr.msu.edu. This study has been reviewed and approved by the Michigan State University Institutional Review Board, and if you have any questions about your rights as a participant in this study, you may contact them at (517) 355-2180. Your participation is voluntary and all responses will be kept confidential.

We appreciate your time and assistance in providing information about your recent tasting room visit!

Sincerely,

Dr. Don Holecek
Principal Investigator, Northern Grapes Project

Follow this link to the Survey:

[\\${l://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${l://SurveyURL}](#)

Follow the link to opt out of future emails:
\${l://OptOutLink?d=Click here to unsubscribe}

Reminder Email to Respondent

Dear \${m://FirstName},

Last week you received a survey regarding your recent visit to
\${e://Field/Winery%20name} Winery tasting room in Wisconsin.

Our records show that you have not yet completed the survey. The questionnaire should only take about 10-15 minutes to complete. Your feedback from your recent tasting room visit is very important to the success of Wisconsin wineries. I am very grateful for your help with this important study.

Reminder: complete this survey to be entered to **win a \$100 Visa gift card!**

Thank you very much for your time and for helping us to learn more about visitors to Wisconsin tasting rooms. If you have any questions about this survey, please email me at NorthernGrapesProject2015@anr.msu.edu.

Sincerely,

Dr. Don Holecek
Principal Investigator, Northern Grapes Project

Follow this link to the Survey:

\${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
\${l://SurveyURL}

Follow the link to opt out of future emails:
\${l://OptOutLink?d=Click here to unsubscribe}

Final Reminder to Respondent

Dear \${m://FirstName},

I just wanted to send a friendly and final reminder about the winery survey that you agreed to complete. Our records show you have not yet completed the survey and we would really appreciate your help. Again, your feedback from your recent tasting room visit is very important to the success of Wisconsin wineries.

As a reminder, all survey respondents are eligible to **win a \$100 Visa gift card!**

The survey period will be ending soon and we would really appreciate your help. If you have any questions about this survey, please email me
at NorthernGrapesProject2015@anr.msu.edu.

Sincerely,

Dr. Don Holecek
Principal Investigator, Northern Grapes Project

Follow this link to the Survey:

\${l://SurveyLink?d=Take%20the%20Survey}

Or copy and paste the URL below into your internet browser:

\${l://SurveyURL}

Follow the link to opt out of future emails:
[Click here to unsubscribe](#)

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