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# Use of a Winery's website for wine tourism development: Niagara region

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## Abstract

This study examines the integration of digital marketing strategies by wineries in the Niagara Region to enhance wine tourism. Through a comprehensive content analysis of 89 winery websites, we identify digital techniques employed to attract and engage potential visitors. Our findings indicate substantial digital involvement, particularly in establishing an essential online presence. However, significant areas for improvement include utilizing interactive features and providing comprehensive tourism experiences. The study underscores the importance of a thorough digital strategy incorporating upgraded virtual tours, strategically positioned visual elements, and enriched web information to enhance the wine tourism experience. This report offers practical insights for wineries and tourism organizations by leveraging successful digital marketing methods in the industry. These insights aim to optimize online strategies, expand the target audience, and promote regional economic growth through wine tourism. This study contributes to the growing body of research on digital marketing in the wine tourism industry and provides a foundation for future studies on the effectiveness of online engagement strategies in niche travel sectors.

**Keywords:** Tourism development, Winery websites, Digital Marketing Strategies, Niagara Region, Experience Economy.

## 1. Introduction

The Niagara region offers a paradigmatic case study for examining the impact of wine tourism on regional development, owing to its distinctive geographical attributes and rich cultural heritage. Its transformation from a picturesque locale to a globally esteemed tourist destination exemplifies a significant shift in regional economic dynamics. Situated in southern Ontario, near Lake Ontario and Lake Erie, this exploration is particularly poignant in an era where digital marketing reshapes how destinations engage with potential visitors. The Niagara Peninsula, leveraging its strategic focus on tourism and online platforms, highlights wine tourism's pivotal role in providing wineries with a direct sales channel and elevating brand recognition. In this competitive landscape, the digital era has magnified the importance of wineries' online presence, enabling them to attract a broader visitor base through their websites<sup>[1][2]</sup>. The distinct geographical and

climatic conditions of the region enhance its allure, offering a myriad of wine experiences that appeal to both domestic and international tourists<sup>[3][4]</sup>.

This research investigates the extent to which wineries in the Niagara Region effectively leverage their websites for wine tourism promotion, amidst a noted gap in comprehensive utilization of digital marketing strategies that could significantly enhance the wine tourism experience. By evaluating the integration of interactive communication, e-commerce capabilities, and detailed regional and wine information on these websites, the study seeks to identify underexploited opportunities for wineries and regional tourism bodies. The goal is to provide actionable guidance, grounded in successful digital marketing studies within the wine industry, for optimizing online presence to more effectively attract and engage tourists, thereby strengthening the Niagara Region's position as a premier wine tourism destination<sup>[5][6]</sup>.

By investigating the digital promotion of wine tourism in the Niagara region, this research enriches the field of wine tourism development with nuanced insights into how wineries leverage online platforms to engage potential visitors. Through a detailed examination of the online marketing strategies of Niagara wine producers and an evaluation of winery websites' content and functionality, this study sheds light on the digital mechanisms that enhance the visitor experience and draw tourists to the region. It emphasizes the significance of interactive communication, e-commerce capabilities, and comprehensive information provision on winery websites as pivotal elements in promoting wine tourism. The findings promise to offer actionable recommendations for wineries and tourism organizations seeking to refine their online presence for visitor engagement and to stimulate economic growth through wine tourism, supported by the backdrop of the Niagara region's competitive wine industry and the global shift towards a digital marketplace<sup>[7][8]</sup>.

The paper's structure unfolds with theoretical foundations and literature insights' in Section 2, providing the essential backdrop and scholarly context. Section 3 elaborates on the research methodology, laying the groundwork for empirical analysis and formulating guiding research questions. Section 4 unveils the study's findings, prefacing comprehensive discussion and analytical exploration in Section 5. The conclusion in Section 6 encapsulates critical insights, articulates limitations, and suggests avenues for future inquiry, thereby bridging theoretical and empirical dimensions.

## 2. Theoretical Foundations and Literature Insights

### 2.1. Theoretical Framework

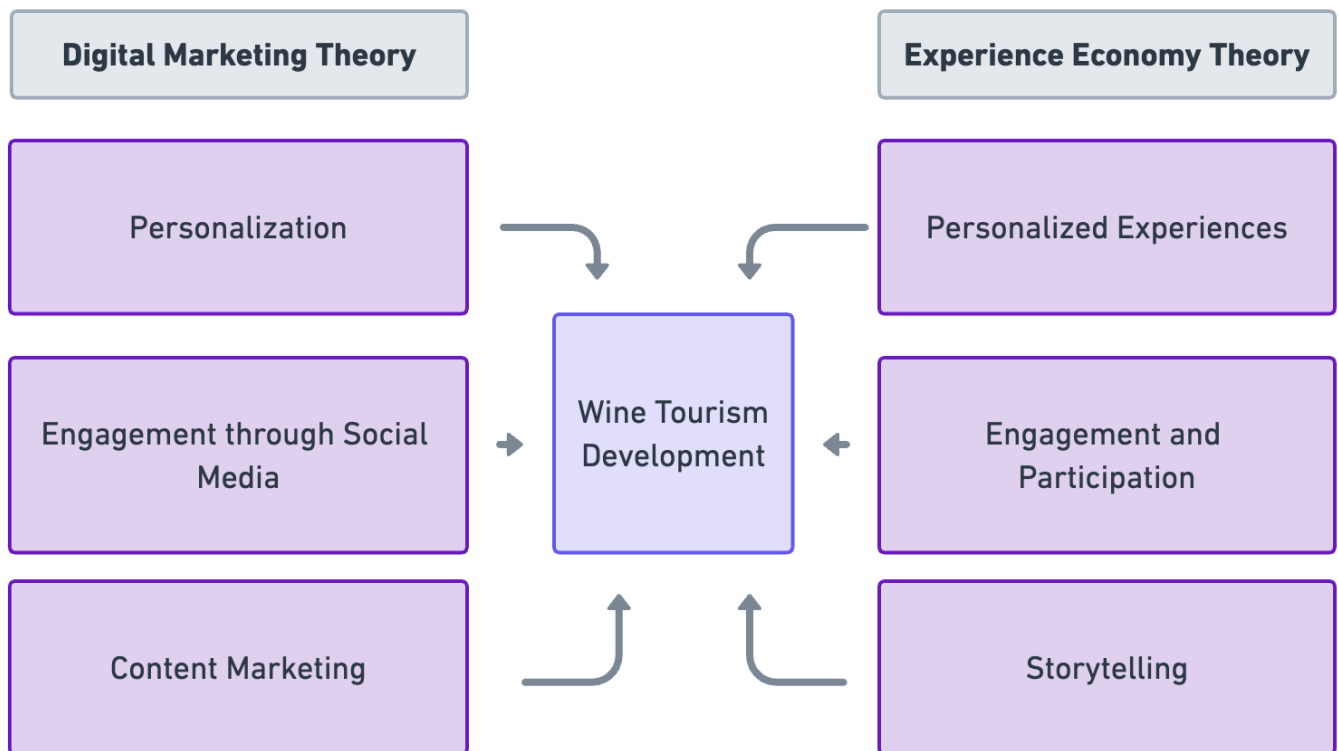
The theoretical framework for this research on the use of winery websites for wine tourism development in the Niagara region is grounded in Digital Marketing Theory and Experience Economy Theory. Digital Marketing Theory elucidates the strategic deployment of online platforms and tactics, including search engine optimization, social media marketing, content marketing, and email marketing, to effectively promote tourism destinations by engaging potential visitors and catalyzing their conversion into actual visits<sup>[9][10][11]</sup>. Examining how wineries leverage websites to communicate brand identity, product offerings, and facilitate consumer decision-making illuminates the applicability of this theory to the wine tourism context. The unique advantages of digital marketing strategies, such as cost-effectiveness, measurability, precise

targeting, and adaptability to differentiate through interactive content creation<sup>[12]</sup>, justify their adoption by wineries seeking competitiveness in the experience economy.<sup>[13][14]</sup>

Furthermore, digital marketing aligns with the experiential nature of wine tourism, enabling wineries to curate immersive storytelling that resonates with consumers' desires for authenticity and memorable encounters. User-generated content fosters electronic word-of-mouth and peer endorsements that engender trust and influence purchase decisions<sup>[15][16]</sup>. The real-time, two-way communication facilitated by digital channels empowers wineries to cultivate lasting relationships with consumers, nurturing their brand loyalty and advocacy<sup>[17][18]</sup>. Digital marketing analytics present opportunities for continual strategy refinement, allowing wineries to adapt to emerging trends and capitalize on niche segments through personalized marketing approaches, conferring a competitive edge<sup>[19][20]</sup>.

Experience Economy Theory, on the other hand, focuses on the significance of creating memorable experiences for consumers<sup>[21]</sup>. This perspective is crucial for understanding how wineries can transform their websites into platforms that offer more than just information about their products and services. By providing virtual tours, interactive tastings, and engaging storytelling about the vineyard's history and winemaking processes, wineries can immerse potential visitors in the wine tourism experience even before they physically visit. This approach illustrates how wineries in the Niagara region can leverage their online presence to sell not just wine but an entire wine tourism experience, thereby enhancing the perceived value of their offerings and encouraging physical visits<sup>[22]</sup>.

Integrating Digital Marketing Theory with Experience Economy Theory allows for a comprehensive analysis of winery websites' role in developing wine tourism in the Niagara region. This research sheds light on the most effective strategies in promoting wine tourism by examining how these websites serve as a crucial touchpoint between wineries and potential tourists. This includes understanding how these websites' design, content, and functionality contribute to a compelling online presence that complements the physical wine tourism experience. Through this theoretical framework, the paper aims to contribute to the broader knowledge of tourism development, offering practical insights for wineries looking to optimize their online marketing strategies in the competitive landscape of wine tourism. Figure 1 depicts the relationship between Digital Marketing Theory and Experience Economy Theory as they contribute to Wine Tourism Development.



**Figure 1.** Integration of Digital Marketing and Experience Economy Theories for Enhancing Wine Tourism Development. (Author's creation)

## 2.2. Overview of the Niagara Wine Region

The Niagara Wine Region, distinguished by its storied past and heterogeneous viticultural terrain, assumes a preeminent position within Canada's vinicultural sector, synergistically integrating traditional methodologies with innovative practices. Boasting an impressive array of over 135 wineries and expansive vineyards spanning more than 10,000 acres, this fertile region unequivocally emerges as Canada's most prolific wine appellation, as corroborated by Winegrowers Ontario<sup>[23]</sup>. Nearly 90% of grape production in Ontario occurs in the Niagara region, highlighting its critical role in the province's viticulture<sup>[24]</sup>. The region's winemaking lineage, traceable to the 19th century, has endured through the fluctuations of temperance and prohibition, blossoming anew in the 20th century with Inniskillin's establishment in 1975, a watershed moment that reinstated commercial winemaking in Ontario after a lengthy hiatus<sup>[25]</sup>. The subsequent growth has been robust, with the wine industry contributing a staggering \$4.4 billion annually to Ontario's economy, of which the Niagara Peninsula is a pivotal driver, accounting for about 80% of this impact<sup>[26]</sup>.

The Niagara region's geographical and climatic advantages are foundational to its viticultural success, with the moderating influence of the Great Lakes fostering a microclimate conducive to grape cultivation. The area's diverse soils and the unique topography offered by the Niagara Escarpment impart distinct characteristics to the wines, nurturing varietals such as Chardonnay, Riesling, Pinot Noir, and the prestigious Icewine<sup>1</sup>, which has become a hallmark of the region's output<sup>[27]</sup>. The economic ramifications of these natural endowments are significant, with the wine and grape industry providing 6,800 to 8,500 full-time equivalent jobs in the region and attracting over 2.4 million visitors annually, who contribute notably to the local economy through wine tourism<sup>[28]</sup>.

Despite climate change and environmental sustainability challenges, the Niagara Wine Region's prospects appear favourable. The economic activity generated by the industry is considerable, with retail sales of Vintners Quality Alliance (VQA) wines from the Peninsula valued at \$582 million in 2021, marking an 11% increase from the previous year<sup>[26]</sup>. Furthermore, the ongoing investments in educational and research facilities, like the Niagara College Teaching Winery, demonstrate a commitment to advancing the industry's growth through innovation and education<sup>[28]</sup>. As the region's wine industry continues to evolve, the symbiotic relationship between the natural landscape, the wine producers, and the influx of tourists will remain integral to the Niagara region's cultural and economic vibrancy. Figure 2 presents a map of Canada's wine regions with the Niagara wine region highlighted.



**Figure 2.** Map of Canada's wine regions with the Niagara region highlighted. (Adapted from CanadaMap360.com)

### 2.3. Economic Impact of Wineries

The economic impact of wine tourism in the Niagara region is a pivotal driver of regional economic development, showcasing the industry's potential to catalyze growth and job creation. The wine sector's contributions are multi-faceted, ranging from direct economic activity to broader employment opportunities. For instance, aligning Ontario's market share with British Columbia's could increase Ontario's GDP by an impressive \$800 million over a decade<sup>[29]</sup>. Moreover, the wine sector in Ontario significantly bolstered the Canadian economy by contributing \$1 billion in 2023<sup>[29]</sup>; this highlights the transformative potential of the wine tourism industry in supporting economic outcomes.

Niagara's wine industry significantly contributes to economic metrics and plays a vital role in environmental stewardship

and sustainable agricultural practices. The industry's efficient use of arable land within Ontario's Greenbelt illustrates a commitment to high-value crop cultivation, marrying environmental sustainability with tourism<sup>[30][31]</sup>. This approach suggests a promising avenue for Niagara, with the potential to witness an \$8 billion rise in real GDP over a generation, marking a 35% growth<sup>[29]</sup>. Such an uplift would highlight the wine tourism sector's capability to reshape the region's economic landscape.

Notwithstanding the persistent challenges of enhancing domestic market share and navigating distribution hurdles, the Niagara region is on the precipice of profound economic metamorphosis, bolstered by its robust infrastructure and escalating reputation for premium vinicultural offerings. Through the judicious implementation of targeted policy interventions and the efficacious resolution of these challenges, Niagara is optimally positioned to cement its status as a global paradigm for wine tourism destinations, thereby catalyzing economic growth and establishing a benchmark for wine regions internationally.

Delving into Table 1 provides a granular view of the wine industry's economic and employment contributions within Niagara, Ontario, and Canada at large. With direct investments yielding \$1,968 million in GDP impact for Niagara, the region benefits significantly from the wine sector's activities. Indirect and induced effects complement this direct contribution, further amplifying the sector's economic role. Overall, the wine industry's total GDP impact in Niagara amounts to \$3,615 million, alongside the support of over 51,000 jobs, illustrating the sector's critical role in promoting economic vitality. These contributions testify to the wine industry's importance in regional development and highlight the sector's expansive potential for further economic growth and job creation. With strategic enhancements and industry innovations, Niagara's wine sector can achieve unparalleled growth, enhancing the region's economic prosperity and the well-being of its communities.

**Table 1.** Summary GDP and Jobs Impact

	GDP Impact: (\$M CAD)			Jobs Impact (FTEs)		
	Canada	Ontario	Niagara	Canada	Ontario	Niagara
<b>2-4 (Ir)6-8 Contribution</b>						
<b>Direct<sup>1</sup></b>	657	657	1,968	4,183	4,183	35,507
<b>Indirect<sup>2</sup></b>	198	162	962	1,835	1,551	10,420
<b>Induced<sup>3</sup></b>	155	130	685	1,204	990	5,212
<b>Total</b>	<b>1,010</b>	<b>949</b>	<b>3,615</b>	<b>7,222</b>	<b>6,725</b>	<b>51,138</b>

Notes: [1] Direct Contribution: Economic value from wine sector's capital investments and operations. [2] Indirect Contribution: Economic value from demand in supplier industries. [3] Induced Contribution: Income effects from wages due to direct and indirect contributions. FTE (Full-Time Equivalent): Employment equivalent to one full-time worker per year.

## 2.4. The Role of Online Information in Wine Tourism

The current state of research in the field of wine tourism development, particularly concerning the utilization of winery

websites for promotional purposes, reflects a growing recognition of the importance of digital marketing strategies in enhancing visitor experiences and driving economic growth in wine-producing regions<sup>[32]</sup>. Recent studies have highlighted the increasing reliance of tourists on online information sources for trip planning and decision-making, underscoring the pivotal role that winery websites play in shaping visitor perceptions and facilitating engagement with potential tourists<sup>[3][33][34][35]</sup>. Scholars have emphasized the need for wineries to leverage their online platforms to provide comprehensive information about their offerings, enhance interactive communication, and improve e-commerce functionalities to attract and retain visitors<sup>[19][36][37][38][39][40]</sup>

Moreover, the literature indicates that regional-based marketing and collaborative efforts among wineries can significantly enhance the destination's image and attract more visitors. Studies like those by<sup>[41]</sup> and<sup>[42]</sup> have established the importance of destination image over product brand image alone, suggesting that wineries in the Niagara region could benefit from a unified approach to digital marketing that emphasizes the unique characteristics of the area. Additionally, the spatial movement of wine tourists, as explored by<sup>[43][44]</sup>, reveals the influence of knowledge and previous experience, pointing to the need for wineries to share engaging stories and experiences through their websites to foster a deeper connection with potential visitors.

Wineries with well-developed websites that offer detailed information on wine products, visitor experiences, and interactive features tend to attract more tourists and enhance their competitiveness in the wine tourism market<sup>[45]</sup>. This is further supported by the work of<sup>[46]</sup>, which highlights the diverse motivations behind winery visits, including the desire for educational experiences and the atmosphere of the winery, suggesting that winery websites should cater to these varied interests to draw in a broader audience. The importance of social media integration, personalized communication, and the inclusion of visual elements, as identified in studies by<sup>[47][48]</sup> and<sup>[49]</sup>, cannot be overstated in creating engaging online experiences for wine tourists. However, there remains a gap in the literature regarding the optimal strategies for wineries to maximize the potential of their websites in promoting wine tourism and differentiating themselves in a competitive market.

Overall, the current state of research highlights the significance of digital marketing and online presence for wineries in the context of wine tourism development. The evidence points to the crucial role of web-based marketing in driving winery retail sales and influencing visitor spending patterns, highlighting the need for Niagara region wineries to adopt comprehensive digital marketing strategies. By addressing the gaps in knowledge and exploring innovative approaches to website optimization, future research in this field can provide valuable insights for wineries, tourism organizations, and policymakers seeking to enhance the wine tourism experience and drive sustainable economic growth in wine regions globally. The exploration of integrated rural tourism models and the examination of the effects of personal experience and word-of-mouth referrals on winery visitations offer promising avenues for further study, particularly in the context of the unique wine tourism landscape of the Niagara region.

## 2.5. Gaps in Existing Literature

Despite significant strides in understanding the role of winery websites in promoting wine tourism, there are still



considerable gaps in the literature. These gaps pertain particularly to the specific features and functionalities of websites that effectively attract and engage visitors. Studies have highlighted the importance of comprehensive information, interactive communication, and e-commerce capabilities<sup>[50][51]</sup>. However, there is a lack of in-depth research into the precise elements of website design, content, and user experience that foster a positive wine tourism experience. This gap underscores the need for empirical studies to explore how wineries can optimize their online presence through tailored website functionalities. Successful examples from various regions have shown significant benefits from strategic online and offline marketing efforts, including effective website design and content strategies tailored to enhance wine tourism<sup>[52][53]</sup>.

Furthermore, the existing literature lacks a comprehensive analysis of the efficacy of social media integration and digital marketing strategies in augmenting the visibility and reach of winery websites<sup>[54][55]</sup>. Given the growing impact of social media on consumer behaviours and decision-making, it's pivotal to explore how wineries can leverage these platforms to bolster wine tourism and interact with potential visitors. Insights from the Niagara region, where wineries have successfully employed social media and digital marketing to attract over 2.6 million wine visitors annually, highlight the potential benefits of integrating these tools into a winery's marketing strategy<sup>[56]</sup>

Moreover, the potential of emerging technologies, such as virtual reality tours and augmented reality experiences, in promoting wine tourism through winery websites remains largely unexplored<sup>[57]</sup>. Investigating the impact of these technologies on providing immersive and interactive experiences could unveil new opportunities for enhancing the online presence of wineries and broadening the audience base. The rapid growth of wine tourism in areas like the Niagara region, supported by innovative marketing strategies and technological integration, is a prime example of the untapped potential in this domain<sup>[58]</sup>.

The integration of corporate identity (CI), corporate personality (CP), and corporate expression (CE) into wineries' online and offline strategies presents another under-researched area with significant implications for competitive advantage. CI, encompassing an organization's unique characteristics and values, CP, reflecting the human aspects of a brand; and CE, involving all forms of communication to convey uniqueness, are crucial for developing a strong corporate brand<sup>[59]</sup>. The success of wineries in the Niagara region can be partially attributed to their effective management of CI, CP, and CE, which has not only improved wine quality but also enhanced their market position and visibility<sup>[59][60]</sup>.

Addressing these gaps through empirical research and case studies, mainly focusing on successful models like the Niagara region's approach to wine tourism and the strategic application of CI, CP, and CE for competitive advantage, can offer invaluable insights for wineries and tourism organizations aiming to optimize their online strategies, improve visitor engagement, and stimulate economic growth in wine tourism destinations.

### 3. Methodology

#### 3.1. Research Design, Approach, and Data Collection Methods



This study employed a quantitative methodology to systematically analyze the content and functionality of winery websites in the Niagara Region. Conducted between July and August 2022, the research aimed to evaluate online marketing strategies and their role in promoting wine tourism. A comprehensive examination was carried out to identify opportunities for enhancing wineries' digital presence, attractiveness, and engagement with potential visitors.

This study examined various aspects of winery websites, including interactive communication features, e-commerce capabilities, and the provision of comprehensive information about wines and the region. An initial Google Maps search for wineries and breweries in the Niagara region of Canada yielded 98 listings. After removing breweries that did not produce wine and listings without functioning websites, the final assessment was conducted on a representative sample of 89 wineries with an active online presence, covering 91% of the initial listings. This high percentage underscores the representativeness of the sample, ensuring that the findings accurately reflect the digital strategies employed by the vast majority of wineries in the region. This curated sample distribution is visually depicted in Figure 4, enabling a focused investigation into how Niagara wineries leverage digital platforms to attract and connect with prospective visitors effectively.

This endeavour explored the primary categories of online marketing utilized by Niagara wineries and employed a comparative analysis to differentiate between websites based on their emphasis on wine tourism. Such a comparison sheds light on the websites' integration, interactivity, and communication features, offering a nuanced understanding of how effectively these digital platforms facilitate wine tourism experiences and promote the Niagara Region as a premier destination.

Incorporating a broad spectrum of producers within the Niagara designation of origin, the study's inclusive approach provided a panoramic view of the digital marketing tactics and wine tourism practices prevalent across the region. The qualitative content analysis, bolstered by a comprehensive sampling strategy, enabled the research to deliver insightful findings and actionable recommendations. These recommendations are aimed at empowering wineries to optimize their online presence, attract more visitors, and contribute to the economic vitality of Niagara's burgeoning wine tourism sector, leveraging innovative digital strategies to enhance the wine tourism experience.

### 3.2. Coding Classification

Each website in the final sample of wineries was individually examined to assess the presence or absence of predefined variables, ensuring a thorough evaluation of their digital marketing strategies and wine tourism offerings. A binary (*Yes/No*) methodology was employed for evaluating the criteria seen in Table 2, where *Yes* signifies content presence and *No* its absence. These criteria were derived from studies by <sup>[61]</sup> and <sup>[62]</sup>, providing a validated framework for assessing winery websites. The prevalence of attributes was quantitatively assessed within two distinct groups: those identified with tourism and those without. This systematic coding process involved counting occurrences of each attribute in both groups and calculating the percentage of entries with the attribute present. If the total count for a group was zero, a percentage of zero was assigned. The computed percentages for both groups were aggregated, capturing the comparative prevalence of each attribute between tourism-associated and non-tourism-associated entries.

To analyze the relationship between website features and wine tourism orientation, we employed the Chi-square test of independence. This statistical approach, ideal for our binary coding methodology, enables the determination of significant differences in the distribution of website features between tourism and non-tourism wineries beyond chance expectations<sup>[63]</sup>. By identifying statistically significant relationships between specific website attributes and a winery's focus on tourism, the Chi-square test provides valuable insights into effective digital strategies for wine tourism development in the Niagara region.

The categorization of wineries into "Tourism" and "Non-Tourism" groups was based on the presence or absence of specific characteristics indicative of a commitment to promoting wine tourism experiences. "Tourism" wineries are distinguished by their provision of information on winery visits, wine-tasting opportunities, on-site activities, interactive communication tools, and e-commerce options catering to wine tourism products and services. Conversely, "Non-Tourism" wineries are characterized by a focus on showcasing their wines, vineyards, and production processes without significant emphasis on wine tourism experiences or visitor services.

### 3.3. Hypothesis

This study posits a series of hypotheses to explore wineries' digital presence and strategies in the Niagara region. These hypotheses focus on assessing the extent of information provision, interactive communication, e-commerce functionalities, and the promotion of regional wine tourism through their websites, reflecting the multifaceted approach wineries take to engage with visitors and promote their offerings online. These are listed below.

- **H<sub>1</sub>**: Winery websites in the Niagara region provide extensive information about their wines, facilities, contact details and other relevant basics for visitors.
- **H<sub>2</sub>**: Interactive communication tools like chatbots and forums enable customer engagement on Niagara winery websites.
- **H<sub>3</sub>**: E-commerce functionalities like online purchasing and delivery are implemented by most wineries in the Niagara region.
- **H<sub>4</sub>**: Regional wine tourism promotions and suggested itineraries featured on Niagara winery websites highlight opportunities in the surrounding area.

## 4. Results

The data presented in Table 2 below delineates a comprehensive analysis across various categories, detailing the presence and penetration of digital strategies among wineries in the context of tourism versus non-tourism orientation. It encompasses a range of metrics, including Total Percentage, Percentage of Tourism-oriented Websites, and Percentage of Non-Tourism-oriented Websites, alongside the statistical significance denoted by  $\chi^2$  values. This structured approach facilitates a nuanced understanding of the digital landscape as it pertains to the promotion of wine tourism within the Niagara Region.

Evaluation of the proposed model: Tourism vs. non-tourism outcomes.

Category	Details	Total (%)	Tourism Y (%)	Tourism N (%)	$\chi^2$
<b>Basic Info</b>	Email	85.39	90.16	75.00	3.538
	Address	94.38	98.36	85.71	5.788
	Phone#	93.26	96.72	85.71	3.698
	Fax#	24.72	21.31	32.14	1.210
	Map	69.66	70.49	67.86	0.063
	Opening Hours	84.27	93.44	64.29	12.307***
	Canada	95.51	100.00	85.71	9.124**
<b>Wine Information</b>	List of Wines	91.01	96.72	78.57	7.728**
	Wine Awards	39.33	44.26	28.57	1.980
	Organic Production	25.84	26.23	25.00	0.015
	Disturb bots and points of sale	65.17	72.13	50.00	4.141
	Newsletter	56.18	65.57	35.71	6.950*
<b>Visual Elements</b>	Google maps	66.29	70.49	57.14	1.53
	Photos of winery	71.91	90.16	32.14	31.984***
	Wine Photos	87.64	98.36	64.29	20.571***
	Wine label photos	86.52	95.08	67.86	12.194***
	Videos	14.61	18.03	7.14	1.825
	Virtual Tours	5.62	8.20	0.00	2.432
	Downloadable	11.24	13.11	7.14	0.686
<b>Internal Integration</b>	Business Description	80.9	88.52	64.29	7.297**
	Winery visits	66.29	83.61	28.57	26.013*
	Wine tasting	69.66	81.97	42.86	13.890***
	Duration of the activity	71.91	91.80	28.57	37.986***
	Museum	2.25	1.64	3.57	0.326
	Restaurant	32.58	42.62	10.71	8.895**
	Accommodation	15.73	18.03	10.71	0.775
	Meeting rooms	4.49	4.92	3.57	0.081
	Other products offered	49.44	59.02	28.57	7.116**
	Other activities offered	41.57	50.82	21.43	6.825**
<b>External Integration</b>	Info on restaurants in region	28.09	36.07	10.71	6.106
	Info on accommodations in region	19.1	22.95	10.71	1.86
	Info on the area	14.61	19.67	3.57	3.989
	External links to destinations	12.36	11.48	14.29	0.140
	External link to regulatory board	5.62	8.20	0.00	2.432
	External link to wine moderation	5.62	8.20	0.00	2.432
	External links to restaurants	11.24	11.48	10.71	0.011
	External links to accommodations	8.99	8.20	10.71	0.149

	External link to accommodations	6.74	9.84	0.00	2.953
<b>Transactional</b>	External link to tourism sites	6.74	9.84	0.00	2.953
	Online purchases	84.27	96.72	57.14	22.678*
	Reservation of activity	64.04	73.77	42.86	7.964**
	Shopping cart	80.9	96.72	46.43	31.413*
	Delivery time	12.36	95.84	17.86	1.140
	Online Payment	79.78	95.08	46.43	28.156***
	Privacy	80.9	96.72	46.43	31.413***
<b>Interactive</b>	Contact section	84.27	91.80	67.86	8.302**
	Wine club	64.04	81.97	25.00	27.046
	Personal profile	57.3	68.85	32.14	10.571**
	Specific area for members	48.31	57.38	28.57	6.377*
<b>Social Networks</b>	Blog	22.47	27.87	10.71	3.2416
	Facebook	84.27	95.08	60.71	17.099*
	Twitter	60.67	70.49	39.29	7.833**
	Instagram	80.9	95.08	50.00	25.241
	Pinterest	6.74	6.56	7.14	0.0105
	G+	2.25	1.64	3.57	0.3261
	YouTube	13.48	14.75	10.71	0.269
	Trip Advisor	13.48	14.75	10.71	0.269
	Possibility of sharing	83.15	93.44	60.71	14.669**
<b>Browsing Design: Technical</b>	Site map	64.04	68.85	53.57	1.946
	Search engine	37.08	45.90	17.86	6.469*
	Homepage button	53.93	60.66	39.29	3.528
<b>Browsing Design: Languages</b>	1 language (English)	93.26	100.00	78.57	14.016***
	2 languages (English + French)	3.37	4.92	0.00	1.4251
	2+ languages	2.25	1.64	3.57	0.326
<b>Logo</b>	Copyright	71.91	80.33	53.57	6.802**
	.com/net	74.16	77.05	67.86	0.846

Note: Tourism (Y) entities promote wine tourism, while Tourism (N) focus on production and distribution. Significance:  $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Figure 3 illustrates the significant differences in website features between tourism-focused and non-tourism-focused wineries, based on Chi-square values. The most pronounced differences are observed in features such as the duration of activities, winery photos, and privacy policies, all marked with the highest Chi-square values. Other significant features include online purchase options, wine photos, and the possibility of content sharing. These findings highlight the key elements that tourism-focused wineries prioritize to enhance their online presence and attract visitors effectively.

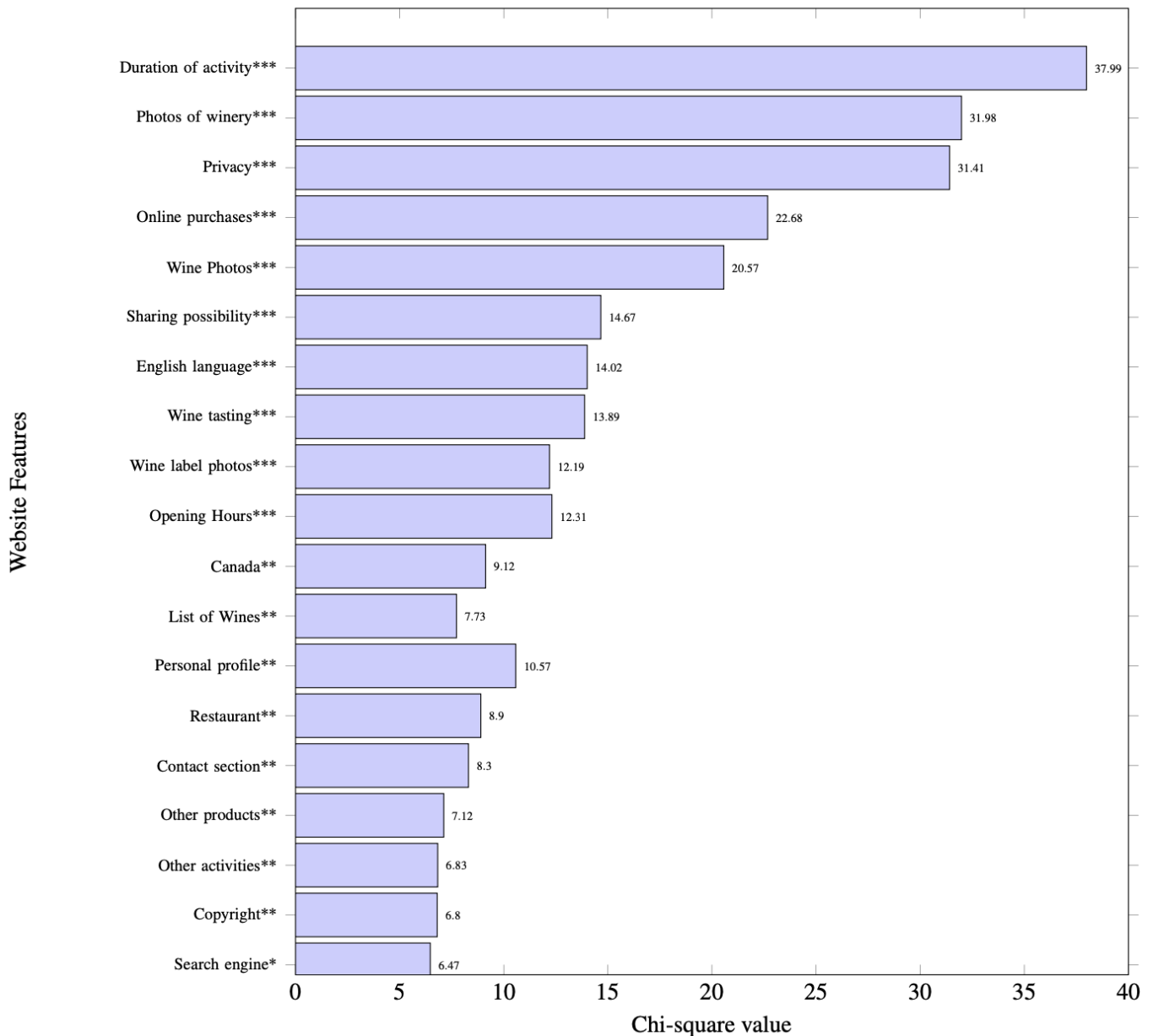


Figure 3. Significant Website Attributes for Tourism vs. Non-Tourism Wineries

## 5. Discussion and Analysis

The examination of winery websites in the Niagara Region, conducted in July 2022, involved a rigorous content analysis to discern the digital strategies employed to promote wine tourism. The sample comprised 89 wineries, with a detailed evaluation rooted in a coding scheme designed to mitigate bias. This approach, inspired by methodologies in content analysis studies<sup>[64][65]</sup>, facilitated an impartial assessment, revealing significant insights into these entities' online presence and promotional tactics.

The analysis unveiled that a substantial proportion of wineries in the Niagara Region have embraced the digital realm to varying extents. Specifically, basic contact information such as email (85.39%), address (94.38%), and phone numbers

(93.26%) featured prominently across websites, indicating a foundational level of digital engagement aimed at facilitating visitor inquiries. Notably, the presence of maps (69.66%) and detailed opening hours (84.27%) on the websites illustrates their role as essential tools for attracting tourists by providing practical information. The chi-square tests further substantiate the significant disparities in the provision of basic information between tourism-focused (Y) and non-tourism-focused (N) wineries, particularly in opening hours and Canada-specific content, highlighting a strategic emphasis on accessibility and local relevance.

Visual elements on the websites emerged as critical components in crafting engaging online experiences. The high incidence of wine and winery photos (above 70%) alongside the notable utilization of Google maps (66.29%) aligns with the objective of visually captivating the audience and simplifying navigation to the wineries. However, the underutilization of virtual tours (5.62%) and downloadable content (11.24%) suggests untapped potential in enhancing the interactive and informative aspects of the websites. Suggestions for improvement include the creation of behind-the-scenes videos and virtual tours to provide potential visitors with an immersive experience, drawing inspiration from successful strategies employed in Napa Valley (USA), Yarra Valley (Australia), and Veneto (Italy).

Internal integration, reflecting the wineries' efforts to offer a holistic tourism experience, presented a mixed landscape. Descriptions of business history and offerings were prevalent (80.9%), yet specific tourism activities like winery visits (66.29%) and wine tastings (69.66%) indicated room for growth in promoting immersive experiences. This can be enhanced by encouraging interactive social media campaigns that involve contests, polls, and Q&A sessions to engage the audience.

In synthesizing these findings, the study delineates a landscape where Niagara Region wineries exhibit a foundational commitment to digital engagement, with notable variances in the depth and breadth of content related to wine tourism. The discernible gaps in integrating comprehensive tourism experiences, detailed wine information, and advanced interactive features present opportunities for strategic enhancement. By bolstering these aspects and focusing on improving system quality, information quality, and form quality, wineries can better harness digital platforms to captivate a broader audience, enrich the wine tourism experience, and foster economic growth within the Niagara Region's wine tourism ecosystem. Additionally, the potential of gamification elements on winery websites, such as virtual wine tasting challenges and loyalty programs, can be explored to increase visitor engagement and return visits. The role of personalization in digital marketing strategies, such as tailored content based on user preferences or browsing history, can further enhance user experience and engagement.

## 6. Conclusion

This study's comprehensive analysis of Niagara winery websites reveals significant insights into the current state and future potential of digital marketing in wine tourism development. Our findings, situated within the broader context of Digital Marketing Theory and Experience Economy Theory, illuminate both the progress made and the opportunities that lie ahead for the region's wine tourism industry. In alignment with **H1**, our research confirms that Niagara winery websites

generally provide extensive information about their wines, facilities, and contact details. However, the depth and presentation of this information could be enhanced to fully capitalize on its potential to attract tourists, as postulated by Digital Marketing Theory. This theory emphasizes the importance of strategic content deployment to engage potential visitors effectively. Contrary to **H2**, we identified a significant gap in the implementation of interactive communication tools on Niagara winery websites. This underutilization of engagement technologies represents a missed opportunity to foster deeper connections with potential visitors, a key aspect of both Digital Marketing Theory and Experience Economy Theory.

Within the broader digital landscape, our analysis situates wineries' current use of online platforms, acknowledging contributions from<sup>[40]</sup> and<sup>[66]</sup>. These insights underscore the need for Niagara wineries to adopt more advanced digital and social media strategies to enhance engagement and visibility. Regarding **H3**, our findings indicate that while some Niagara wineries have implemented e-commerce functionalities, adoption is not as widespread as hypothesized. This gap in digital capabilities highlights a critical area for development, especially considering the growing consumer expectations for online purchasing options. **H4** is partially supported, with some websites featuring regional wine tourism promotions and suggested itineraries. There is considerable potential to enhance these offerings, creating a more cohesive regional tourism experience by aligning with Experience Economy Theory, which emphasizes immersive and memorable experiences extended to the digital realm through virtual tours and interactive storytelling.

Our research reveals a notable gap in the literature regarding the efficacy of social media integration and advanced digital marketing strategies in augmenting the visibility and reach of winery websites. This finding aligns with Digital Marketing Theory's emphasis on leveraging multiple digital channels for comprehensive brand communication and engagement. Furthermore, our study highlights the untapped potential of emerging technologies such as virtual reality tours and augmented reality experiences in promoting wine tourism. These technologies, when integrated into winery websites, could significantly enhance the online experience, bridging the gap between digital engagement and physical visitation. The analysis also underscores the importance of regional collaboration in digital marketing efforts, a strategy that aligns with both theoretical frameworks. By leveraging collective branding and coordinated marketing initiatives, Niagara wineries could enhance their overall appeal to wine tourists, creating a more compelling narrative that draws visitors to explore the unique viticultural landscapes and experiences offered by the region.

This study contributes to the understanding of how Digital Marketing Theory and Experience Economy Theory can be applied to wine tourism development. It reveals that while Niagara wineries have made strides in their digital presence, significant opportunities exist to enhance interactive engagement, expand e-commerce functionalities, and more effectively promote regional tourism opportunities. By addressing these areas through a harmonized strategy that incorporates advanced digital marketing techniques and experiential offerings, Niagara wineries can attract a broader audience and contribute to the sustainable growth of wine tourism in the region. Additionally, we recommend the implementation of a content calendar for wineries, focusing on seasonal events, harvest updates, and winemaking processes to maintain year-round engagement. The creation of a regional wine route app that integrates all Niagara wineries, offering real-time updates, reservations, and personalized itineraries, could further enhance the visitor experience and drive regional economic growth.



## 6.1. Limitations and Future Research

The study's limitations include its regional focus on the Niagara area, potentially affecting the generalizability of findings to other wine regions. The sample size of 89 wineries offers a substantial but not exhaustive view, suggesting that a larger, more randomized sample might enhance the findings' representativeness. The reliance on qualitative content analysis and a binary coding scheme introduces subjectivity. It simplifies the complexity of digital marketing strategies into "yes/no" categories, which could be nuanced with a multi-point scale. Additionally, the cross-sectional design limits the study to a one-time observation, omitting the dynamic nature of digital marketing evolution. The exclusion of winery perspectives and the broader digital ecosystem, including social media and e-commerce platforms, alongside the sole focus on content analysis without direct measures of tourist behaviour or outcomes, points to areas for deeper exploration. Future research could benefit from incorporating longitudinal studies, direct feedback from wine marketers, an omnichannel analysis, and comparisons with other wine regions to address these limitations and adapt to the fast-paced advancements in digital technology.

Future research in the Niagara region's wine tourism could focus on assessing the impact of winery websites on tourist behaviour through pre- and post-visit surveys to understand the influence on visitation intentions and experiences. Interviews with wine marketers could offer deeper insights into digital marketing strategies while exploring emerging technologies like augmented/virtual reality and AI chatbots present opportunities to enhance the online visitor experience. Comparative analyses across various wine regions could identify diverse and effective digital marketing practices, and the development of best practice benchmarks and optimized website design guidelines could improve online tourist engagement. Integrating digital marketing with complementary offline efforts and adopting a holistic approach to the wine tourism ecosystem, including regional collaborations and infrastructure, alongside longitudinal studies tracking changes in digital marketing, would provide a comprehensive view of evolving strategies and their effectiveness in wine tourism development.

## Appendices

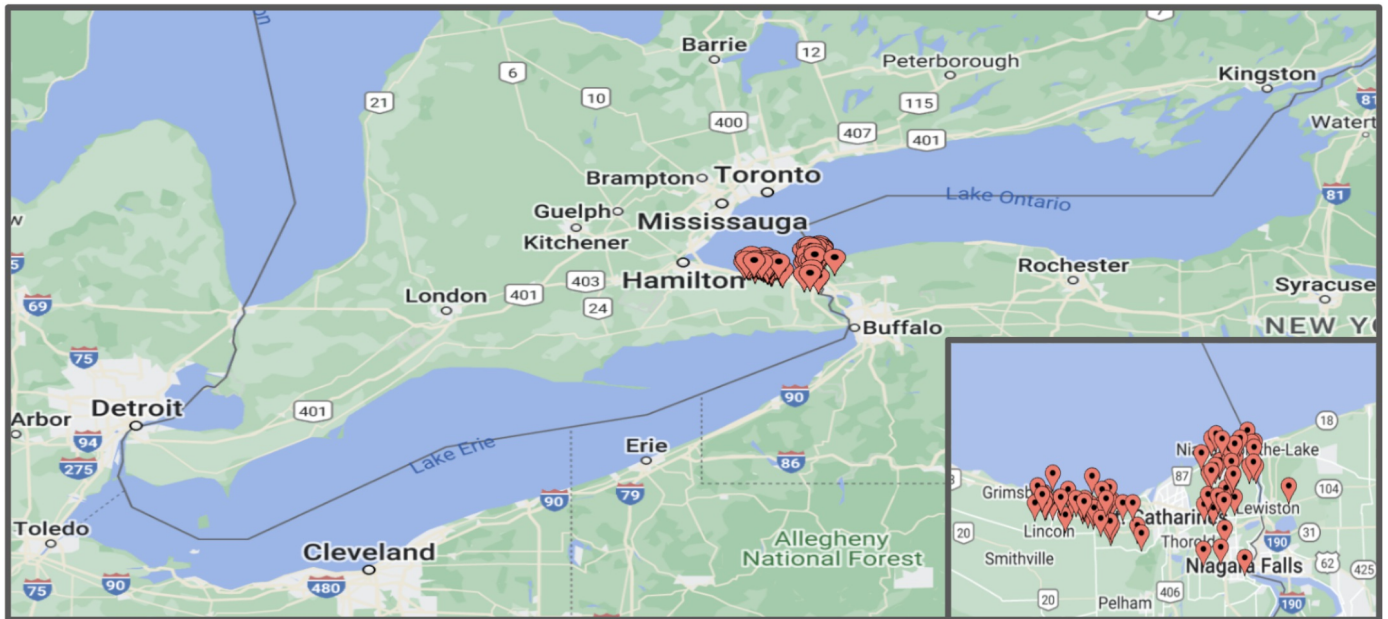


Figure 4. Distribution of Wineries in the Niagara Wine Region within Study (Adapted from Google Maps)

## Footnotes

<sup>1</sup> an alcoholic dessert drink created from frozen grapes left on the vine.

## References

- <sup>^</sup> Javier Martínez-Falcó, Bartolomé Marco-Lajara, Eduardo Sánchez-García, Luis A. Millán-Tudela. *The impact of wine tourism on the sustainability outcomes of spanish wineries: An exploration via structural equation modeling*. In: *Wine tourism and sustainability: The economic, social and environmental contribution of the wine industry.*: Springer 2024. pp. 207–225.
- <sup>^</sup> Salman Yousaf, Fan Xiucheng. (2018). *Halal culinary and tourism marketing strategies on government websites: A preliminary analysis*. *Tourism Management*. 68:423–443.
- <sup>a, b</sup> Bruce McAdams, Statia Elliot, Joshua E. LeBlanc. (2021). *Drive by my cellar door: Rethinking the benefits of wine tourism in niagara*. *Tourism Analysis*. 26(2-3):225–236.
- <sup>^</sup> Hillary Dawson, Mark Holmes, Hersch Jacobs, Richard I. Wade. (2011). *Wine tourism: Winery visitation in the wine appellations of ontario*. *Journal of Vacation Marketing*. 17(3):237–246.
- <sup>^</sup> Giuseppe Festa, Maria Teresa Cuomo, Pantea Foroudi, Gerardino Metallo. (2020). *Wine tourism as a non-core business strategy for small wineries*. *International Journal of Managerial and Financial Accounting*. 12(2):149–164.
- <sup>^</sup> Katarína Remeňová, Zuzana Skorková, Nadežda Jankelová. (2019). *WINE TOURISM AS AN INCREASINGLY VALUABLE REVENUE STREAM OF a WINERY 's BUSINESS MODEL*. *Економика пољопривреде*. 66(1):23–34.
- <sup>^</sup> Jorge Mota, Rui Costa, António Moreira, Silvana Serrão, Carlos Costa. (2021). *Competitiveness framework to support regional-level decision-making in the wine industry: A systematic literature review*. *Wine Economics and Policy*.

10(2):29–40.

8. <sup>^</sup>Marianna Sigala, Richard Robinson. (2019). *Wine tourism destination management and marketing*. Springer.
9. <sup>^</sup>Damianos P. Sakas, Dimitrios P. Reklitis. Predictive model for estimating the impact of technical issues on consumers interaction in agri-logistics websites. In: *Information and communication technologies for agriculture—theme IV: actions.*: Springer 2022. pp. 269–283.
10. <sup>^</sup>Paul Strickland, Kim M. Williams. (2022). *The adoption of smart industry 4.0 app technology and harnessing e-WOM in the wine industry caused by a global pandemic: A case study of the yarra valley in australia*. *Journal of Hospitality and Tourism Insights*.
11. <sup>^</sup>Dave Chaffey, Fiona Ellis-Chadwick. (2019). *Digital marketing*. Pearson.
12. <sup>^</sup>Boban Melović, Mijat Jocović, Marina Dabić, Tamara Backović Vulić, Branislav Dudic. (2020). *The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in montenegro*. *Technology in Society*. 63:101425.
13. <sup>^</sup>Oanh Thi Kim Vu, Abel Duarte Alonso, Thanh Duc Tran, Wil Martens, Lan Do, et al. (2023). *Coffee culture unravelled: Exploring the coffee shop experience model in the vietnamese context*. *Tourism Recreation Research*. :1–19.
14. <sup>^</sup>Alessandro Bressan, Abel Duarte Alonso, Oanh Thi Kim Vu, Lan Thi Ha Do, Wil Martens. (2022). *The role of tradition for food and wine producing firms in times of an unprecedented crisis*. *British Food Journal*. 124(4):1170–1186.
15. <sup>^</sup>Charles Hofacker, Ismail Golgeci, Kishore Gopalakrishna Pillai, David Marius Gligor. *Digital marketing and business-to-business relationships: A close look at the interface and a roadmap for the future*. *European Journal of Marketing*.: Emerald Publishing Limited 2020. pp. 1161–1179.
16. <sup>^</sup>Jameson L. Hayes, Yan Shan, Karen Whitehill King. *The interconnected role of strength of brand and interpersonal relationships and user comment valence on brand video sharing behaviour*. In: *Electronic word of mouth as a promotional technique*.: Routledge 2020. pp. 142–164.
17. <sup>^</sup>Liu Yang. (2021). *Digital trends for an effective corporate communication: An in-company project with the german winery römmerts weinwelt*. PhD thesis, ISCTE-Instituto Universitario de Lisboa (Portugal).
18. <sup>^</sup>CM Sashi, Gina Brynildsen, Anil Bilgihan. (2019). *Social media, customer engagement and advocacy: An empirical investigation using twitter data for quick service restaurants*. *International Journal of Contemporary Hospitality Management*. 31(3):1247–1272.
19. <sup>a, b</sup>Saad Khan. (2023). *The digital vineyard: Online marketing in the wine industry*.
20. <sup>^</sup>Abel Duarte Alonso, Seng Kok, Seamus O'Brien. (2020). *Brexit, the wine sector and organisational resilience: An exploratory study of spanish wineries*. *Review of International Business and Strategy*. 30(3):301–322.
21. <sup>^</sup>Ivan Ka Wai Lai, Yide Liu, Dong Lu. (2021). *The effects of tourists' destination culinary experience on electronic word-of-mouth generation intention: The experience economy theory*. *Asia Pacific Journal of Tourism Research*. 26(3):231–244.
22. <sup>^</sup>Daniel Susilo, Maria Clara K. Santos. (2023). *Digital marketing communication sustainable hotel practice of accor group in social media*. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*. 3(3):730–743.
23. <sup>^</sup>Wine Growers Ontario. *Wine growers ontario website*. 2023. Available from: <https://www.winegrowersontario.ca/>

24. <sup>a</sup> *Niagara Economic Development. Regional quick facts. 2022. Available from: <https://niagaracanada.com/data/regional-quick-facts/>*
25. <sup>a</sup> Gerard V. Middleton, Nick Eyles, Nina Chapple, Robert Watson. (2009). *Niagara rocks, building stone, history and wine. Geological Association of Canada Toronto 2009 Organizing Committee.*
26. <sup>a, b</sup> Statistics Canada. *The daily - statistics canada. 2023. Available from: <https://www150.statcan.gc.ca/n1/en/type/data>*
27. <sup>a</sup> Melody B. Johnson, Mehrab Mehrvar. (2020). *Winery wastewater management and treatment in the niagara region of ontario, canada: A review and analysis of current regional practices and treatment performance. The Canadian journal of chemical engineering. 98(1):5–24.*
28. <sup>a, b</sup> *Niagara Peninsula Vintners. Niagara peninsula vintners website. 2023. Available from: <https://www.andrewpeller.com/brands/wine-country-vintners/>*
29. <sup>a, b, c</sup> Deloitte. (2023 May). *The niagara cluster: Ontario's untapped economic engine. 2023. Available from: <https://www.winegrowersontario.ca/wp-content/uploads/2023/07/The-Niagara-Cluster-Ontarios-Untapped-Economic-Engine.pdf>*
30. <sup>a</sup> Wayne Caldwell, Elise Geschiere, Emily Sousa, Regan Zink. (2021). *Municipal capacity: A case study of ontario's greenbelt to respond to emerging agriculture and agri-food priorities. International Journal of Environmental Impacts. 4(3):243–261.*
31. <sup>a</sup> Maureen Carter-Whitney, Thomas C. Esakin. (2010). *Ontario's greenbelt in an international context. Canadian Institute for Environmental Law; Policy Toronto, ON, Canada.*
32. <sup>a</sup> C. Michael Hall, Gary Johnson, Richard Mitchell. *Wine tourism and regional development. In: Wine tourism around the world.: Routledge 2009. pp. 196–225.*
33. <sup>a</sup> Jing Xu, Libo Yan, Connie KY Mak. (2022). *Destination residents' expected tourist experiences of unconventional attractions and their intention to recommend. Journal of China Tourism Research. 18(3):510–532.*
34. <sup>a</sup> Angela G. Seby, Kenneth Jordan, Prawannarat Brewer. (2022). *Travel decisions: The COVID-19 paradigm shift on the use of travel aggregator websites for vacation planning. Tourism: An International Interdisciplinary Journal. 70(2):223–242.*
35. <sup>a</sup> See Yong Shu, Wan Hussain Wan Ishak, Fadhilah Mat Yamin. (2022). *A web-based application for interesting place recommendation. In: 2022 international conference on decision aid sciences and applications (DASA): IEEE pp. 215–220.*
36. <sup>a</sup> Warwick Frost, Jennifer Frost, Paul Strickland, Jennifer Smith Maguire. (2020). *Seeking a competitive advantage in wine tourism: Heritage and storytelling at the cellar-door. International Journal of Hospitality Management. 87:102460.*
37. <sup>a</sup> Constantina Costopoulou, Maria Ntaliani, Filotheos Ntalianis. (2019). *An analysis of social media usage in winery businesses. Adv Sci Technol Eng Syst. 4:380–387.*
38. <sup>a</sup> Lea Iaia, Paola Scorrano, Monica Fait, Federica Cavallo. (2017). *Wine, family businesses and web: Marketing strategies to compete effectively. British Food Journal. 119(11):2294–2308.*
39. <sup>a</sup> Paul Strickland, Kim M. Williams, Jennifer Laing, Warwick Frost. *The use of social media in the wine event industry: A case study of the high country harvest in australia. In: Successful social media and ecommerce strategies in the wine industry.: Springer 2016. pp. 74–92.*

40. <sup>a, b</sup> Abel Duarte Alonso, Alessandro Bressan, Michelle O'Shea, Vlad Krajsic. (2013). *Website and social media usage: Implications for the further development of wine tourism, hospitality, and the wine sector*. *Tourism Planning & Development*. 10(3):229–248.
41. <sup>^</sup> Clifford Lewis, Greg Kerr, Lois Burgess. (2019). *Positioning a destination as fashionable: The destination fashion conditioning framework*. *Tourism Management*. 72:209–219.
42. <sup>^</sup> Arturo Molina, Mar Gómez, David Martín-Consuegra. (2010). *Tourism marketing information and destination image management*. *African journal of Business management*. 4(5):722.
43. <sup>^</sup> Frederic Ponsignon, Mehdi Amiri-Aref, Renaud Lunardo, Tatiana Bouzdine-Chameeva. (2023). *Assisting visitor path creation in experiential tourist attractions*. *Tourism Management Perspectives*. 49:101187.
44. <sup>^</sup> Wenbao Liu, Bingxue Wang, Yang Yang, Naixia Mou, Yunhao Zheng, et al. (2022). *Cluster analysis of microscopic spatio-temporal patterns of tourists' movement behaviors in mountainous scenic areas using open GPS-trajectory data*. *Tourism Management*. 93:104614.
45. <sup>^</sup> Leighann Neilson, Judith Madill. (2014). *Using winery web sites to attract wine tourists: An international comparison*. *International Journal of Wine Business Research*. 26(1):2–26.
46. <sup>^</sup> Eli Cohen, Livnat Ben-Nun. (2009). *The important dimensions of wine tourism experience from potential visitors' perception*. *Tourism and Hospitality Research*. 9(1):20–31.
47. <sup>^</sup> Alina Zaharia, Maria-Claudia Diaconeasa, Natalia Maehle, Gergely Szolnoki, Roberta Capitello. (2021). *Developing sustainable food systems in europe: National policies and stakeholder perspectives in a four-country analysis*. *International Journal of Environmental Research and Public Health*. 18(14):7701.
48. <sup>^</sup> Gergely Szolnoki, Rebecca Dolan, Sharon Forbes, Liz Thach, Steve Goodman. (2018). *Using social media for consumer interaction: An international comparison of winery adoption and activity*. *Wine Economics and Policy*. 7(2):109–119.
49. <sup>^</sup> Roberta Capitello, Lara Agnoli, Diego Begalli, Stefano Codurri. (2014). *Social media strategies and corporate brand visibility in the wine industry: Lessons from an italian case study*. *EuroMed Journal of Business*. 9(2):129–148.
50. <sup>^</sup> Caitlyn Eugenia Wihardja, Mochammad Haldi Widiyanto. (2023). *E-commerce website: A systematic literature review*. In: *2023 international conference on informatics, multimedia, cyber and informations system (ICIMCIS)*.: IEEE pp. 648–652.
51. <sup>^</sup> Coralie Haller, Daria Plotkina. *Analysis of user-experience evaluation of french winery websites*. In: *Handbook of research on user experience in web 2.0 technologies and its impact on universities and businesses*.: IGI Global 2021. pp. 147–160.
52. <sup>^</sup> Ivan Paunovic, Nóra Obermayer, Edit Kovari. (2022). *Online branding strategies of family SME wineries: A hungarian-german comparative study*. *Journal of Family Business Management*. 12(3):450–467.
53. <sup>^</sup> Vladi Finotto, Christine Mauracher. (2020). *Digital marketing strategies in the italian wine sector*. *International Journal of Globalisation and Small Business*. 11(4):373–390.
54. <sup>^</sup> Maria Alebaki, Maria Psimouli, Stella Kladou, Foivos Anastasiadis. (2022). *Digital winescape and online wine tourism: Comparative insights from crete and santorini*. *Sustainability*. 14(14):8396.
55. <sup>^</sup> Abel Duarte Alonso, Wil Martens, Jackie Lei Tin Ong. (2022). *Food tourism development in wine regions*:



*Perspectives from the supply side. Current Issues in Tourism. 25(12):1968–1986.*

56. <sup>^</sup> VQA. *Ontario's VQA wine & grape industry 2030 vision.* [https://winecountryontario.ca/wp-content/uploads/2023/02/2030-Vision\\_ExecutiveSummary-web.pdf](https://winecountryontario.ca/wp-content/uploads/2023/02/2030-Vision_ExecutiveSummary-web.pdf) 2023.
57. <sup>^</sup> Roberta Garibaldi. *The role of technology in wine tourism.* In: *Routledge handbook of wine tourism.*: Routledge 2022. pp. 557–566.
58. <sup>^</sup> Vítor João Pereira Domingues Martinho. (2021). *Contributions from literature for understanding wine marketing. Sustainability. 13(13):7468.*
59. <sup>a, b</sup> Stephen A. Greyser, Mats Urde. (2019). *What does your corporate brand stand for.* *Harvard Business Review. 1(2):82–89.*
60. <sup>^</sup> Federico Guillermo Topolansky Barbe, Andrea Fularczuk, Magdalena Maria Gonzalez Triay. (2015). *Would the niagara region benefit from specialising in riesling?* *Bucharest University of Economic Studies Publishing House. :57.*
61. <sup>^</sup> Benedetta Esposito, Maria Rosaria Sessa, Daniela Sica, Ornella Malandrino. (2021). *Exploring corporate social responsibility in the italian wine sector through websites.* *The TQM Journal. 33(7):222–252.*
62. <sup>^</sup> Filipe Carvalho, Gilberto Santos, Joaquim Gonçalves. (2018). *The disclosure of information on sustainable development on the corporate website of the certified portuguese organizations.* *International Journal for Quality Research. 12(1):253.*
63. <sup>^</sup> Mattan S. Ben-Shachar, Indrajeet Patil, Rémi Thériault, Brenton M. Wiernik, Daniel Lüdecke. (2023). *Phi, fei, fo, fum: Effect sizes for categorical data that use the chi-squared statistic.* *Mathematics. 11(9):1982.*
64. <sup>^</sup> Salmalina Salleh, Noor Hazarina Hashima, Jamie Murphy. (2015). *Instagram marketing: A content analysis of top malaysian restaurant brands.* *E-Review of Tourism Research. 6:1–5.*
65. <sup>^</sup> Jan Ahrens, James R. Coyle. (2011). *A content analysis of registration processes on websites: How advertisers gather information to customize marketing communications.* *Journal of Interactive Advertising. 11(2):12–26.*
66. <sup>^</sup> Justin Matthew Pang, Wil Martens, Ngoc Minh Chau Bui. (2022). *Online learning for vietnamese hospitality and tourism university students during a time of covid-19.* *VNU Journal of Science: Education Research. 38(4).*