



Complying winery marketing strategies based on attitudes and perceptions towards winery terroir

 **Spyridon Mamalis**

International Hellenic University, Greece

 **Irene (Eirini) Kamenidou**

International Hellenic University, Greece

 **Aikaterini Karampatea**

International Hellenic University, Greece

 **Spyridon Arseniou**

Horizontal Support to Western Balkans DG NEAR, European Commission, Greece

 **Elisavet Bouloumpasi**

International Hellenic University, Greece

 **Adriana Skendi**

International Hellenic University, Greece

 **Glykeria Fourkioti**

Regional Center of Plant Protection and Quality Control of Thessaloniki, Greece

Abstract:

Purpose: This study explores winery visitors' attitudes towards terroir significance as well as perceptions of terroir for marketing communication and as a competitive advantage for wineries, and uses these as a basis to examine intergenerational cohort differences.

Methods: An online questionnaire was distributed using criteria for inclusion and employing a non-probability sampling frame. Over a seven-month period, 1174 questionnaires from members of four different generational cohorts were obtained and statistically analyzed. Descriptive statistics, factor, reliability analysis and One-way ANOVA were used.

Results: On a 7-point Likert scale, cohorts in all cases, somewhat agree with the statements regarding winery and wine terroir. Cohort differences towards the three dimensions "Attitudes towards terroir significance", "Terroir as a competitive advantage" and "Terroir for marketing communication" were detected for the first and last dimension, whereas Baby Boomers and Generation Y had more positive attitudes and perceptions than Generation X and Generation Z.

Implications: Acknowledging actual and potential wine tourists' attitudes towards terroir significance and perception of terroir as a competitive advantage tool and for marketing communication, wineries may implement effective marketing strategies in order to survive and thrive in the current competitive wine tourism market.

Keywords: wine terroir, marketing communication, competitive advantage, generational cohorts, generational cohort differences

JEL Classification: L66, M3, M31

Biographical note: Spyridon Mamalis is a Professor of Marketing at the International Hellenic University of Greece, Department of Management Science and Technology. Also, he is the Head of the Department of Agricultural Biotechnology and Oenology Development. He has published 7 books, 53 peer reviewed articles in international journals and 87 articles in international conference proceedings. He has been the leader of more than 8 projects financed by EU. Irene (Eirini) Kamenidou (PhD, MSc, BSc, BA) is a Professor of Marketing at the International Hellenic University of Greece. Her research interests focus on marketing (agricultural, food, tourism, retailing, health, social), consumer behavior and sustainability. She has served as Dean at the School of Business and Economics of the Eastern Macedonia and Thrace Institute of Technology.



Aikaterini Karampatea holds a BSc in Chemistry (Auth) and Oenology (Diplôme National d'Oenologue and Master (uB)) in 2005, PhD in Vine, Wine and Beverage Sciences (UniWA) in 2022. Since 2011 she is a Research Fellow at the Department of Agricultural Biotechnology and Oenology of IHU. Spyridon Arseniou holds a Bsc and Msc in Agronomy, an MA in International Affairs (MA) and a PhD in Agricultural Economics & Management. Languages: English (C2), Bulgarian (C2), and basic (B1) knowledge of French. Engaged in a significant number of scientific publications. Currently he serves as a Policy Coordinator - Horizontal Support to Western Balkans, DG NEAR [Directorate-General for Neighbourhood and Enlargement Negotiations] at the European Commission. Elisavet Bouloumpasi holds a BSc in Food Science and Technology (Faculty of Agriculture, Aristotle University of Thessaloniki), an MSc in Oenology – Viticulture (Faculty of Agriculture, Aristotle University of Thessaloniki). She is an Adjunct lecturer in the Department of Agricultural Biotechnology and Oenology, at the International Hellenic University Greece. Adriana Skendi is an Adjunct Assistant Professor in the Department of Agricultural Biotechnology and Oenology, International Hellenic University holding a PhD in Food Science and Technology and an MSc in Food Quality Management. Glykeria Fourkioti holds a BSc in Food Science and Technology (Faculty of Agriculture, Aristotle University of Thessaloniki), a BSc in economics (School of economics, Aristotle University of Thessaloniki) and a MSc in Agricultural Economics (Faculty of Agriculture, Aristotle University of Thessaloniki). She is an Official inspector for food of non-animal origin, phytosanitary inspector -Peripheral Center of Plant Protection and Quality Control of Thessaloniki-Ministry of Rural Development and Food.

1 INTRODUCTION

The wine market has undergone significant fluctuations during the last decades, the number of competitors has increased (Vrontis et al., 2011) and wineries strive to improve their marketing strategies. This has led wineries to ameliorate their marketing strategies, e.g., reinforcing the connection between territory and wine (Giacomarra et al., 2020) and communicating this link to potential and actual consumers (Charters et al., 2017; Riviezzo et al., 2017; Warman & Lewis, 2019).

Wine tourism has become widespread worldwide from the mid 90's (Carrà et al., 2016). Brown and Getz (2005, p. 266) state "Wine tourism is a form of special-interest travel based on the desire to visit wine-producing regions or in which travelers are induced to visit wine-producing regions, and wineries in particular, while traveling for other reasons". Moreover, academics showed that wine tourism is combined with other activities (Brown & Getz, 2005; Gomez & Molina, 2012), and is carried out by "wine lovers" (Connolly, 2019). Part of wine tourism is visiting a winery; thus, the winery as other tourist destinations strive to attract new visitors and retain old ones. Therefore, the intense competition in the wine tourism industry exposes that wineries have to showcase their competitive advantage to attract wine tourists. One of the strategies implemented by wineries is to communicate their terroir, i.e., reinforcing the connection between territory and their produced wine (Charters et al., 2017; Riviezzo et al., 2017; Warman & Lewis, 2019). Carrà et al. (2016) state that wine tourists are motivated to visit a winery when they are offered services and products linked to the territory (amongst other factors).

Terroir as academics point out is a complex construct that encompasses both the "physical" and "natural" environment of the vitivini production (e.g., soil, climate, and landscape), as well as the "human factor", in the broader sense, such as historical and sociocultural factors (e.g., Laville 1993; Patterson & Buechsenstein, 2018; Capitello et al., 2021).

While there are many studies on wine terroir, in their majority they either focus on the concept of wine terroir or its significance from the winery's perspective (e.g., Castelló, 2021; Riviezzo, et al. 2017). Likewise, a shortage of studies exist that explore wine tourists' perception of terroir and those that have been found examine specific elements of it

(e.g., Santos et al., 2021; Coroş et al., 2019). Similarly, there is a lack of studies that investigate attitudes towards winery/wine terroir (as a holistic concept), with only one study found (Capitello et al., 2016). Lastly, to the best of our knowledge, no study exists that examine wine tourists' perceptions of wine/winery terroir as competitive advantage or marketing communication element from the wine tourists' perspective. Demographic characteristics and specifically age have been reported to influence destination choices (e.g., Tomić & Božić, 2015; Weigert et al., 2022). Within this context, generational cohorts are becoming increasingly important in tourism research (e.g., Weigert et al., 2022; Kamenidou et al., 2018; Silva et al., 2021; Garibaldi et al., 2022), including studies on wine tourism (Thach et al., 2021; Charters & Fountain, 2006; LaTour et al., 2021; Taylor et al., 2010). This is due to the fact that cohorts incorporate people within a specific birth year range (age), at the same place, experiencing the same significant life events that shape their behavior (e.g., Wey Smola & Sutton, 2002).

In terms of generational cohort behavior and wine terroir tourism few studies were detected (Capitello et al., 2021; Carmichael & Senese, 2011). Similarly, a handful of studies refer to wine tourism and generational cohort differences (e.g., Charters & Fountain, 2006; LaTour et al., 2021; Taylor et al., 2010), with no study to the best of our knowledge, that combines wine terroir, wine tourism, and generational cohort differences. Additionally, to the best of our knowledge no study examines generational cohort attitudes and perceptions towards terroir as a winery's competitive advantage or communication element.

Therefore, the identified gaps in the literature that refer to the "terroir" as a notion totality and not towards specific elements of it are the following. 1. There is a lack of studies on terroir and self-assessed knowledge of the concept of terroir from the wine tourist's perspective. 2. There is a lack of studies that investigate attitudes towards terroir and its significance from the wine tourist's perspective. 3. No study exists (to the best of our knowledge) that examines wine tourists' perceptions of terroir as a winery's competitive advantage element. 4. No study exists (to the best of our knowledge) that examine wine tourist's perceptions of terroir for wineries marketing communication. 5. Wine tourists as members of multiple generational cohorts and wine terroir is understudied. 6. No study (to the best of our knowledge) examines generational cohort attitudes and perceptions

towards terroir as a winery's competitive advantage or for marketing communication. 7. No study (to the best of our knowledge) examines generational cohort differences regarding wine terroir significance and perception of terroir as a winery's competitive advantage or for marketing communication.

Given the lack of studies related to attitudes and perceptions of terroir, this study explores generational cohort attitudes and perceptions towards winery terroir from wine consumers and winery visitors (actual or potential). Specifically, the following objectives (OB) are addressed:

OB1: Whether wine tourists from different generational cohorts know what wine/winery terroir is (self-assessed knowledge)

OB2: Generational cohorts' attitudes towards wine/winery terroir

OB3: Generational cohorts' perceptions of wine/winery terroir as a competitive advantage of a winery

OB4: Generational cohorts' perceptions of winery terroir for marketing communication

OB5: Generational cohort differences based on the above variables (attitudes and perceptions).

This research paper makes a theoretical contribution to academia by decreasing the abovementioned identified seven gaps in literature. Additionally, it adds to the extant literature by providing information from four different cohorts and examining their differences in attitudes and perception as regards winery/wine terroir, an issue that has been understudied from the wine tourists' point of view. Moreover, on practical basis it offers with knowledge from wine tourists from various generational cohorts in order for wineries to implement the appropriate marketing strategies targeting each cohort.

In order to fulfill the above aim and objectives of the study, it draws data from the Greek generational cohorts who are wine consumers and have visited or are planning to visit a winery in the short run (next six months).

While academics agree on the importance of cohorts in consumer research, there is no general agreement on the years and names of the cohorts. Therefore, today and after the year of 1900 the cohorts that exist and have a considerable number of members are the GI Generation (1901-1924; McCrindle & Wolfinger, 2009), the Silent Generation (1925 -1945; McCrindle & Wolfinger, 2009), the Baby Boomer Generation (1946-1964; McCrindle & Wolfinger, 2009), Generation X (1965-1977; Wey Smola & Sutton, 2002), Generation Y or Millennials (1978 and 1994; Williams & Page, 2011), and Generation Z (1995 and 2009; McCrindle & Wolfinger, 2009). This research uses the above dates on cohorts since the generational cohort theory for Greek studies is still in its infancy and specific dates for the Greek cohorts based on life-changing events have not yet been published (to the best of our knowledge).

This paper continues with the geographical framework of the study and the literature review, followed by the methodology of the research. It then highlights the results of the data

analysis, the discussion, and the theoretical managerial and marketing implications. Lastly, the conclusion, limitations, and direction for future research are presented.

1.1 Geographical framework of study

This research focuses on Greece, a country with a wine making tradition from antiquity (Sykalia et al., 2023; Skalkos et al., 2022). According to the International Organization of Vine and Wine (2023) for the year 2022, as regards vineyard surface area, 95922 ha is reported in use, ranking Greece as 20th in the world. Greece also ranks 19th in wine production (2084000 hl) and 24th in wine consumption for the same year, as the same organization states. Although, Greece has a long history in wine production, wine tourism only began to develop in the mid 90's (Velissariou et al., 2009), with "cruise packages", with internet sites promoting wine tourism, and wine trails (Hall & Mitchell, 2000). The same authors point out that while many Greek wineries exist throughout the country, due to the country's geography they are difficult to visit (Hall & Mitchell, 2000).

According to the Greek Law 4582/2018 - Official Gazette 208/A/11-12-2018 "Wine tourism is the special form of tourism which concerns the provision of reception, guided tours, hospitality, and catering services in areas functionally integrated with winemaking or wine-producing facilities (vineyards). These services are offered in combination with activities related to viticulture and wine production". In accordance to the same law, it is classified under agritourism, being one of its subcategories. It is also noted that in Greece in order for a winery to be able to accept visitors (Law 4276/2014 (Government Gazette 155/A'/30-07-2014), as amended by article 138 of Law 4495/2017 (Official Gazette 167/A'/3-11-2017), it should have the Visiting Winery Badge (sign) which is provided by the Ministry of Tourism.

José Antonio Vidal, president of GWTO, in his interview with the Athens-Macedonian News Agency (AMNA, 2023), stated "Greece is one of the most promising emerging wine tourism destinations because of what the country itself represents in terms of culture and nature". In many parts of the country, efforts are undertaken to develop wine tourism combining or associating it with the cultural and historical tourist attractions. For example, Karagiannis and Metaxas (2020) report that the last decade in the region of Peloponnese different actions have been implemented to bust wine tourism, such as "wine trails" where wineries partook in a "tourist cluster connecting archeological sites, wineries with stunning landscape, and unique local wines with characteristic terroir" (p.12).

According to López (2022) regarding the "number of wine tours and tastings listed on Tripadvisor in selected European countries" (February 2022), Greece is 5th in ranking with 514 wine tours, whereas Italy (1st place) has 2000 wine tours. France, Spain and Portugal also precedes Greece in the ranking order. The same author states that Greece is ranked 6th for wine tourism worldwide (for the year 2021) with index score 5.24/10 (index score is based on a series of elements- factors).

This research focuses on wine tourists (actual or potential) that have visited or has intention to visit wineries in the Prefecture (or regional unit) of Drama, Greece. Drama regional unit (prefecture) of Greece, is located in the Eastern Macedonia and Thrace region and has a long history of wine

production, systematically though, after the late 70's (Karapetsas et al., 2023). Today, in the regional unit of Drama, eleven wineries function which cultivate twenty-seven grape varieties and produce about 3 million bottles (Karapetsas et al., 2023). Additionally, Drama has special events connected to wines and wine production, such as the "Drama Wine Trail" and "Dramaoinognosia" (Drama oino-knowledge) a wine festival, inextricably linked to the god Dionysus and the land of Drama (Plakidis, 2023).

2 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The literature review presented is a selection of articles that are as closely related as possible to the aim and objectives of this study, since the overview of literature did not detect articles that directly relate to them.

The International Organization of Vine and Wine (OIV, 2010), define Vitivinicultural "terroir" as follows: "Vitivinicultural "terroir" is a concept which refers to an area in which collective knowledge of the interactions between the identifiable physical and biological environment and applied vitivinicultural practices develops, providing distinctive characteristics for the products originating from that area. "Terroir" includes specific soil, topography, climate, landscape characteristics and biodiversity features" (OIV, 2010). Besides this definition, many academics have provided with wine terroir definition (e.g. Dubos, 1984; Vaudour, 2002; Laville, 1990, 1993).

Extant research (e.g., White, 2020; Meinert, 2018; van Leeuwen et al., 2017; Van Leeuwen et al., 2010; Moran, 2001; Patterson & Buechsenstein, 2018; Vaudour, 2002), have shown that wine terroir is a multi-factor construct. Wine terroir embraces the physical and natural environment of the wine production, the human factor, and also historical-heritage and sociocultural elements (e.g., Dubos, 1984; Laville, 1990, 1993; Patterson & Buechsenstein, 2018; Vaudour, 2002, 2003; Capitello et al., 2021; Charters et al., 2017; Castelló, 2021; Barham, 2003). For example, van Leeuwen et al. (2017) consider terroir as "a cultivated ecosystem" in which grapevines interact with physical and natural elements of the environment and specifically with its soil and climate. In their article they focus on the natural and physical aspects of terroir and specifically "Air and soil temperature", "Vine water status" and "Vine nitrogen status". Several studies refer to wine terroir investigating different aspects such as the concept of wine terroir, the elements that shape it, and perceived importance for marketing communication practices. Though, these are mainly from the winery's point of view (Castelló, 2021; Riviezzo, et al. 2017; Cross et al., 2011; Moran, 2001; Patterson & Buechsenstein, 2018; Spielmann & Gélinas-Chebat, 2012; Van Leeuwen & Seguin, 2006; Vaudour, 2002), while other study residents' commitment in consideration to terroir for winegrowing and place of residence (e.g., Capitello et al., 2021). Additionally, some focus on specific terroir elements, such as toponymy (e.g., Anagnostou & Tsiakis, 2023; Tsiakis et al., 2022). For example, Riviezzo et al. (2017) investigated the concept of terroir, the perceptions that wine producers hold as concerns terroir, and its potential for use in their marketing strategies in order to highlight the local identity and cultural heritage.

The research was undergone using wineries as case studies in Italy (N=11) and France (N=15) by employing qualitative research.

As regards the concept of terroir from the consumers point of view, fewer studies explore this concept (e.g., Mamalis et al., 2023a; Couder & Valette-Florence, 2020a, 2020b; Spielmann & Gélinas-Chebat, 2012). Specifically, Mamalis et al. (2023a) examined if Greek wine consumers (N=366) know what wine terroir is. After providing with the definition, they asked from participant to state which of the 17 elements presented incorporate this notion. They also examined gender difference on this basis. They found that Greek wine consumers lack knowledge of terroir and its elements, while gender differences in four cases were found. Couder and Valette-Florence (2020a) explored how consumers perceive (N=12; France) a wine's terroir of origin (ToO), employing a projective qualitative methodology (Album online). Five clusters of associations were extracted from the analysis. The first cluster was the "Symbolic traditions anchored in ToO" with main concepts incorporated being "Cultural traditions", "Wine traditions" and "ToO memories (association of symbolic representations, thoughts)". The second cluster was the "Wine culture, anchored in the ToO" with main concepts incorporated being "Landscape, Producers, Culture" (all related to personal memories). The third cluster was the "Social symbolic dimension" with main concepts incorporated being connected to family and friends such as "Friendliness", "Sharing friendship", "Family transmission" and "Family". The fourth cluster was the "Memories dimension", including concepts such as "Walks", "Shared drunkenness", "Nostalgia" and "Recklessness". The last dimension was "Enchantment dimension" that incorporated concepts such as "Utopian place", "Timelessness", and "Art de vivre". Also, Couder and Valette-Florence (2020b) investigated the perception of terroir of origin (ToO) in the minds of French wine consumers (N=123) and found four association clusters "ToO Knowledge", "ToO Memories", "Product evocation" and "Human dimension". Spielmann and Gélinas-Chebat (2012) explored in France how producers, vendors, and wine consumers define wine terroir referring to the French wine industry and found that each group defines it differently based on their involvement.

Other consumer studies refer to specific terroir elements, mainly those related to geographic identification schemes (Espejel et al., 2011; Espejel & Fandos, 2009; Ribeiro & Santos, 2007), and authenticity (e.g., Spielmann & Charters, 2013). For example, Spielmann & Charters (2013) examined the concept of terroir in France by focusing on issues of "origin", "typicity" and "legality" and examining their perceptions towards the nature of terroir and its association with authenticity. They employed an online questionnaire towards both people that worked in the wine industry (N=290) and consumers who did not work in the wine industry (N=421). They found that the terroir concept incorporates three dimensions related to authenticity: "product", "internalized" and "institutional" authenticity, with all three being positively correlated. Batat (2013) with qualitative research examined the significance and the dimensions (symbolic and functional) of terroir products among French consumers (N=30) but did not refer to wine or wine tourism.

Moreover, there is an abundant number of studies referring to wine tourism (e.g., Nella & Christou, 2014; Charters & Ali-Knight, 2002). Though, studies that relate (and do not have only a simple reference) to “terroir wine tourism” or “wine terroir tourism” returned a small number of studies (N<60) almost all in the last decade, revealing that it is a uprising issue (Kastenholz et al., 2021; Kruger & Viljoen, 2021; Holland et al., 2014; Peršurić et al., 2019; Malerba et al., 2023; Marlowe & Bauman, 2019; Bruwer & Alant, 2009; Marlowe, 2016; Capitello et al., 2021).

Likewise, there is a shortage of studies that explore wine tourists’ perception of terroir (Capitello et al., 2013; Harrington et al., 2019; Santos et al., 2021; Coroş et al., 2019), most of which refer to the wineries point of view or focus on a specific element of terroir (e.g., Pelet et al., 2020). Example is the study by Malerba et al. (2023) who explored from the wineries’ managers (N=29; Portugal) perspective the way wine estates and wineries cater to families with children, examining the “supplier side of inclusive wine terroir experiences”.

Similarly, there is a lack of studies that investigate attitudes towards winery/ wine terroir, with only two studies found (Lenglet, 2014; Capitello et al., 2016), but the first does not relate to wine, wine tourism or tourism in general, but rather examines “terroir food product consumption behavior”. Capitello et al. (2016, p.517) examined if terroir impacts on consumers’ wine choice, and specifically by the terroir elements displayed on a wine label, verifying the heterogeneity of consumer’s evaluation process”. They targeted the Generation Y cohort (N=982; Italy), and through an online questionnaire applying a Discrete Choice Experiment, they identified seven latent classes (using Latent Class Choice Models). Their findings reveal that for the majority of the Generation Y cohort the terroir is significant, although it varies according to interpretation and the cues associated with it.

There are also a few studies that focus on wine terroir tourism. For example, Kastenholz et al. (2021) examined wine terroir experiences as reported by visitors’ data in Central Portugal via 137 comments reported on Tripadvisor. They found that the role of wine, tangible cultural heritage, and natural landscapes in providing emotionally gratifying, memorable and recommendable wine terroir experiences is significant. Though, this study did not incorporate the generational cohort theory nor cohort differences. Holland et al. (2014) developed a conceptual framework for terroir tourism by reviewing the relevant literature and using as a case study a wine region in Ontario Canada. Finally, the article most closely related to our research is that of Peršurić et al. (2019), who explored terroir for wine tourism by winemakers (N=34; Istria, Croatia) and visitors (N=107) and found that Istria’s terroir was recognizable by tourists and as regards the viticulture and viticulture terroir, its added value “reflected land, soil, climate and vineyards in which autochthonous wine grapes were grown” (p. 330), and that Istria’s wine terroir dimensions contained the product, the natural dimensions, and the activities (Peršurić et al. p.331). Even fewer studies were returned that focus on wine terroir tourism and generational cohorts’ behaviour (Capitello et al., 2021; Carmichael & Senese, 2011). Similarly, a handful of studies refer to wine tourism and generational cohort differences (e.g., Charters & Fountain, 2006; LaTour et al.,

2021; Taylor et al., 2010), with no study to the best of our knowledge, that combines wine terroir, wine tourists, and generational cohort differences.

While these subjects studied are crucial to winery stakeholders for marketing activities, though, they do not deal with the issues that this study focuses on. Therefore, since we have not found studies that deal directly with the focus of this paper (i.e., generational cohort differences based on attitudes towards terroir significance, perceptions of terroir in marketplace competition and winery’s marketing), here too, a number of studies were selected that fit as closely as possible the context of this study (descending order of publication date).

Mamalis et al. (2023b) examined if wine consumers consider terroir elements important when choosing a wine. Data was collected from Greece (N=366) from four different generational cohorts (Generation Z, Generation Y, Generation X, and Baby Boomers). Participants were presented with different variables (N=44) that affect wine choice, including elements of terroir, and asked to name the importance of each when choosing a wine. They found that “taste”, “smell”, “price”, “aroma”, “authenticity” and “clarity and color of wine” were the main variables that effect their wine choice. One-way Anova based on extracted dimensions: “Core terroir”, “Product outcome”, “Human terroir and gastronomy” and “Communication terroir” did not reveal Generational cohort differences.

Deng et al. (2022) explored social media users’ responses (China; N= 24,458 online comments) towards top wine influencers (N= 30) endorsed short wine videos (N=81) on the platform – Douyin, relying on message interpretation process (MIP) framework. Their aim was to identify segmentation differences from two generational cohorts (Generation Z: N=1547; Generation Y: N=3354). They found that “Gen Z was more likely to comment on emotional, internalization and drinking intent subjects, while Gen Y was prone to asking more product, logical and skepticism-related questions. Gen Z cohort involved more themes about alcohol drinking intent, whereas Gen Y contributed more to skepticism” (Deng et al., 2022, p.694). Bauman et al. (2020) studied generational differences with 276 participants from Texas, USA, in consumer Web 2.0 information source adoption for wine purchasing decisions, particularly social media and internet-based sources. The sample per cohort was Generation Y=87; Generation X=87; and Baby Boomers=102. They realized that younger consumers, specifically the Generation Y and Generation X consumers, prefer to use Web 2.0 information sources, such as wine blogs, wine applications, their contacts’ recommendations and wine experts on social media, while older ones use their own wine knowledge. They also found that Generation X acts as a bridge between Generation Y and Baby Boomers with reference to trust on sources for wine information. Charters and Fountain (2006) explored the perceptions and experiences of different cohorts as visitors to winery cellar doors in Western Australia using observation technique and specifically with 24 mystery shoppers sent in four groups. They found that Baby Boomers are more interested in the product than the members of the Generation Y and Generation X cohort. On the other hand, the Generation Y and Generation X cohorts were more interested in the overall experience and service provided as compared to Baby

Boomers. Taylor et al. (2010) explored in the USA, 315 wine consumers environmental concerns and attitudes about wine regions (Generation Y/Millennials: 64; Generation X: 63, Baby Boomers: 180; other: 8). Results revealed for the dependent variable “protect”, Baby Boomers had stronger beliefs that wine tourism must protect the cultural environment as compared to the Generation Y/Millennials, while as for the variable “development”, Baby Boomers “reported stronger beliefs that proper wine tourism development requires wildlife and natural habitats be protected at all times” as compared to the Generation Y/Millennials.

Based on the above-mentioned analysis, in the wine/winery terroir setting, it is possible that from the wine tourist’s perspective, terroir is significant for wineries, is a competitive advantage tool and can be used for marketing activities. Accordingly, based on the overview of the previous studies, this study hypotheses has as follows:

H1: There will be significant differences in attitudes towards wine/winery terroir significance among generational cohorts.

H2: There will be significant differences in perceptions of terroir and wine/winery competitive advantage and competitiveness among generational cohorts.

H3: There will be significant differences in perceptions of terroir for wine/winery marketing communication among generational cohorts.

3 METHODOLOGY

A questionnaire was developed especially for this purpose based on previous literature (e.g., Cohen & Ben-Nun, 2009; Capitello et al., 2021; Castelló, 2021; Charters et al., 2017; LaTour et al., 2021; Taylor et al., 2010; Patterson & Buechsenstein, 2018; Spielmann & Gélinas-Chebat, 2012; Van Leeuwen & Seguin, 2006) as well as qualitative research (N=20; 5 per cohort). The questionnaire consisted of three different sections. The first section was related to wine consumption and previous visit to wineries in the area of Drama, as well as intention to visit a winery in the specific area in the short run (up to the next six months). These questions were the control questions (yes-no). If the first (wine consumption) and last question (intention to visit a winery) were answered as “no” then the questionnaire was discarded. The reason for targeting actual or potential wine tourists is that wine tourism as Connolly (2019) points out is carried out by “wine lovers”, and for so, they tend to be more involved in wine information search, and thus probably have more knowledge about wines and their terroir. The second section referred to wine terroir and wine tourists’ (actual or potential in the short run) attitudes and perceptions towards it. Lastly the third section contained the socioeconomic and demographic characteristics of the participants. The questions and results directly related to the aim and objectives to this study will be the only ones presented.

As regards the second section, referring to wine terroir, preceding the questions, self-assessed knowledge of terroir, followed by the definition, concept, and the elements of wine

terroir were presented. Subsequently, there was a question asking if participants understood the concept of terroir and its elements (control question). If this question was negatively answered, then again, the questionnaire was discarded, if yes, the participants’ answers were taken into account. Regarding the terroir questions, the first question required participants to state their attitude (7-point Likert scale) towards the statements referring to wine terroir significance, the second question required to indicate their degree of agreement (7-point Likert scale) towards statements referring to terroir and winery’s competitive advantage/ competitiveness (11 statements), while the third question required participants to state their degree of agreement (7-point Likert scale) towards statements referring to terroir and winery marketing communication (5 statements). A pilot test was conducted with 164 participants excluded from the final sample. The pilot test resulted in minor grammar and syntax corrections. The questionnaire was distributed online, employing a non-probability (criteria) sampling frame, and over a seven-month period, 1708 questionnaires were obtained from which 1174 were statistically analyzed. The remainder did not meet the criteria for inclusion. Analysis with the SPSS ver.29 statistical program included firstly descriptive statistics, i.e., frequencies, percentages, and mean values (MV). Additionally, it included reliability assessment of the questionnaire, factor analysis, and One-way ANOVA. The latter was used to explore existing generational cohort differences between the three beforementioned questions-issues. In the case that statistical differences were observed across cohorts, then the Tukey’s B test was used to explore from where these specific differences originate.

4 FINDINGS

4.1 Sample profile

Based on the above procedure and analysis, the sample’s profile is as follows. Male subjects (52.8%) were slightly overrepresented compared with female subjects (47.2%). Also, the Generation X (33.7%) and Generation Y (32.9%) cohort was overrepresented. Additionally, most participants were married (52.3%), lived in the city (76.3%), and had at least a university degree (48.6%). Moreover, most participants received a monthly salary (63.6%), and as to net monthly family income, the majority ranged between 1000.01-2000.00€, as it was reported by 38.3% of the sample (Table 1).

4.2 Wine consumer behavior

Of the total 1174 questionnaires analyzed in the study, 58.4% (N=686) had visited a winery in the Drama region while the rest have it in their program for the near future (next six months). As to wine self-assessed knowledge, 35.7% had little or no knowledge, 43.1% some knowledge and the rest (21.3%) had advanced wine knowledge. As to wine/winery terroir self-assessed knowledge (Objective No.1) the vast majority of the sample had little or no knowledge (92.3%). As for significant factors for visiting a winery (7-point Likert type scale), the three most significant were: “The winery offers tour of the winery (processing-production area, cellars, etc.)” (MV= 5.69), “The winery offers a vineyard tour”

(MV=5.45), and “The winery is easily accessible” (MV=5.36).

Table 1: Participants

Participants profile	N	%
Gender		
Male	620	52.8
Female	554	47.2
Cohort		
Generation Z	270	23.0
Generation Y	386	32.9
Generation X	396	33.7
Baby Boomers	122	10.4
Marital status		
Single	442	37.6
Married	614	52.3
Divorced	96	8.2
Widowed	22	1.9
Education		
Primary education	16	1.4
Secondary education	236	20.1
Postsecondary education	202	17.2
University student	150	12.8
Graduate	400	34.1
Postgraduate	170	14.5
Profession		
Salaried (Employee public-private, on pension, on unemployment fund for at least 6 months)	746	63.6
Businessman	194	16.5
Worker	6	0.5
University student	156	13.3
Dependent (housekeeper, unemployed)	72	6.1
Area of residence		
City	896	76.3
Town	104	8.9
Village	174	14.8
Net Monthly Family Income (in euros)		
≤ 600,00	146	12.4
600,01-1000,00	310	26.4
1000,01- 2000,00	450	38.3
2000.01-3000	180	15.3
3000.01 +	88	7.5

Source: The authors

4.3 Attitudes towards winery terroir significance

Table 2 presents participants attitudes in MV towards terroir and its significance for the winery from the wine tourists’ perspective (Objective No.2) by generational (Gen) cohort and total sample (TS). Results reveal that in most cases the lowest MV derive from the Generation Z cohort who expressed the most negative attitudes, followed (in most cases) by the Generation X cohort. Moreover, the most positive attitudes towards terroir originated from the Baby Boomers, followed by the Generation Y cohort. It is pointed out that in all cases no MV>5.50 or MV<4.50, thus there is a concentration around the 5th point of the 7-point Likert scale, implying that the participants somewhat agree to these statements. The most positive attitude is attributed to the statement “It is beneficial for the wineries to showcase their terroir” and specifically from the Baby Boomer cohort (MV=5.49). On the other hand, the lowest MV is attributed to the statement “It is essential for wineries to showcase their terroir for the survival of a winery and its wines in the marketplace”, and specifically from the Generation Z cohort (MV=4.63).

Table 2: Attitudes towards winery terroir significance (mean values)

Statements	Gen Z	Gen Y	Gen X	BB	TS
1. I consider that terroir is very important for wine making and its winery.	4.69	5.06	4.91	5.15	4.93
2. It is good for the wineries to showcase their terroir	4.67	4.98	4.98	5.13	4.93
3. It is essential for wineries to showcase their terroir for the survival of a winery and its wines in the marketplace	4.63	4.83	4.77	5.28	4.81
4. It is beneficial for the wineries to showcase their terroir	4.98	5.35	5.08	5.49	5.19
5. I consider that the elements that consist of the terroir are very important for the winery and the quality of a winery’s wines	4.84	5.20	5.09	5.34	5.09
6. The elements of the wine terroir is for me the wine consumer an indicator of the quality of the wines and subsequently for the quality of the winery.	4.98	5.24	5.01	5.31	5.11
7. I look for wines and wineries that showcase their terroir elements	4.82	4.99	4.80	5.05	4.89

Source: The authors; Gen Z= Generation Z, Gen Y= Generation Y, Gen X= Generation X, BB= Baby Boomers

Table 3 presents participants perception (MV) towards terroir for winery’s competitive advantage/ competitiveness in the marketplace (Objective No.3) per generational (Gen) cohort and total sample (TS). In all cases no MV>5.50 or MV<4.00, thus there is a concentration around the 4th and 5th point of the 7-point Likert scale, implying that the participants either “neither agree nor disagree” or “somewhat agree” towards these statements. Also, in most cases the lowest MV are drawn from the Generation Z cohort who express the most negative perceptions, followed (in most cases) by the Generation X cohort. Moreover, the most positive perceptions towards wine terroir as competitive advantage and competition purposes originate from the Baby Boomers, followed by the Generation Y cohort. Also, the highest MV is attributed to the statement “Displaying the elements that consist of their wine terroir aids wineries reach the global market easier than their competitors” and specifically from the Baby Boomer cohort (MV=5.34). On the other hand, the lowest MV is attributed to the statement “The elements of wine terroir prioritize to their customer since they provide with detail information of the production of wines (e.g., climate, culture, human interventions) giving them a competitive advantage compared to the wineries that do not display their terroir”, and specifically, it originates from the Generation Z cohort (MV=4.20).

4.4 Terroir for winery marketing

Regarding participants perception towards terroir for winery marketing communication (Objective No.4) per generational (Gen) cohort and total sample (TS), it is observed that in all cases no MV>5.50 or MV<4.50 (Table 4). Thus, there is a concentration around the 5th point of the 7-point Likert scale, implying that the participants “somewhat agree” towards these statements. In all cases the lowest MV derive from the Generation Z cohort followed (in all cases) by the Generation X cohort. Moreover, the strongest perceptions towards wine terroir for marketing purposes originate from the Baby Boomers, followed by the Generation Y cohort.

Table 3: Perceptions of winery terroir as a competitive advantage (mean values)

Terroir as a competitive advantage	Gen Z	Gen Y	Gen X	BB	TS
1. Wine terroir elements force wineries to operate in a context of healthy competition since buyers have information of the wine production environment (natural, physical, human)	4.67	4.92	4.82	4.90	4.83
2. Wineries that are competitive display the elements of their wine terroir	4.57	4.83	4.78	4.75	4.75
3. The elements of wine terroir prioritize to their customer since they provide with detail information of the production of wines (e.g., climate, culture, human interventions) giving them a competitive advantage compared to the wineries that do not display their terroir	4.20	4.39	4.33	4.41	4.33
4. Wine terroir is a comparative advantage for the wineries against their competitors	4.81	4.96	4.85	5.16	4.91
5. Displaying the elements that consist of their wine terroir aids wineries to differentiate themselves from the competition	4.84	4.91	4.81	5.25	4.90
6. Displaying the elements that consist of their wine terroir aids wineries retain their customers, therefore terroir is a competitive advantage tool for wineries	4.84	4.98	4.75	5.02	4.88
7. Displaying the elements that consist of their wine terroir aids wineries create loyal customers, therefore terroir is a competitive advantage tool for wineries	5.10	4.94	4.87	5.11	4.97
8. Displaying the elements that consist of their wine terroir aids consumers to build trust in the wineries, therefore terroir is a competitive advantage tool for wineries	5.16	4.98	4.88	5.16	5.01
9. Wine terroir elements help wineries reach customers easier, therefore terroir is a competitive advantage tool for wineries	4.90	4.87	4.75	4.74	4.82
10. Displaying the elements that consist of their wine terroir aids wineries reach the global market easier than their competitors	5.04	5.14	4.90	5.34	5.06
11. The adoption of wine terroir elements is very important for the survival of a winery and its wines in the national marketplace	4.71	4.90	4.70	5.03	4.80

Source: The authors; Gen Z= Generation Z, Gen Y= Generation Y, Gen X= Generation X, BB= Baby Boomers

The strongest perception is attributed to the statement “The ability to display the wine products or the winery with photos and videos, focusing on the elements of wine terroir are important marketing communications techniques for wineries and its wines” and specifically from the Baby Boomer cohort (MV=5.43). Opposing, the lowest MV is attributed to the statement “The communication of the elements of wine terroir is necessary for the marketing of a winery and its wines”, originating from the Generation Z cohort (MV=4.76).

Table 4: Perceptions of winery terroir for marketing communication purposes (MV)

Marketing	Gen Z	Gen Y	Gen X	BB	TS
1. The communication of the elements of wine terroir is necessary for the marketing of a winery and its wines	4.76	5.04	4.92	5.03	4.94
2. By communicating the elements of wine terroir, the image of the winery and its wines is enhanced	5.01	5.19	5.03	5.41	5.12
3. The ability to display the wine products or the winery with photos and videos, focusing on the elements of wine terroir are important marketing communications techniques for wineries and its wines	4.95	5.21	5.03	5.43	5.11
4. Posting videos of the winery, its wine products and communicating the elements of wine terroir is an efficient Marketing strategy of the wineries.	5.05	5.28	5.20	5.39	5.21
5. I consider that wine and winery marketing should focus on the elements that compose their terroir and communicate it effectively to consumers	5.04	5.28	5.18	5.28	5.19

Source: The authors; Gen Z= Generation Z, Gen Y= Generation Y, Gen X= Generation X, BB= Baby Boomers

4.5 Factor analysis

For each question an exploratory factor analysis was implemented with varimax rotation in order to decrease the variables for further analyses. In this procedure each question resulted in one factor. Table 5 presents the indices per factor (Eigenvalues>1.0).

Table 5: Dimensions of the terroir attitudes and perceptions

Dimension Names	KMO	BTS	df	p	TVE (%)	No of items	Range of loadings	Cronbach α	MFS	Std
Attitudes towards terroir significance	.914	6853.306	21	<0.001	72.8	7	.808-.889	.937	4.99	1.23
Terroir for competitive advantage	.952	12225.565	55	<0.001	70.4	11	.710-.878	.957	4.84	1.31
Terroir for marketing communication	.875	5266.996	10	<0.001	80.3	5	.882-.919	.938	5.11	1.39

Source: The authors; Gen Z= Generation Z, Gen Y= Generation Y, Gen X= Generation X, BB= Baby Boomers; KMO= Kaiser–Meyer–Olkin (KMO) test; BTS= Bartlett’s test of Sphericity; df=degree of freedom; p=probability value; TVE= total variance explained; MFS= mean factor score; and Std= standard

4.6 ANOVA analysis and multiple comparison of means

The 5th objective of this study is to examine generational cohorts’ differences regarding attitudes towards terroir significance and perception of terroir as a wine/winery’s competitive advantage and for marketing communication (hypotheses: H1, H2, and H3). To test these three hypotheses, One-Way ANOVA was used (Table 6) whereas the three terroir-related dimensions were the dependent variables, and the generational cohorts were the independent variable.

Table 6: ANOVA tests between terroir attitudes and perceptions and generational cohorts

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Attitudes towards terroir significance	Between Groups	22.691	3	7.564	4.519	.004
	Within Groups	1958.352	1170	1.674		
	Total	1981.044	1173			
Terroir for competitive advantage	Between Groups	6.120	3	2.040	1.192	.312
	Within Groups	2003.147	1170	1.712		
	Total	2009.267	1173			
Terroir for marketing communication	Between Groups	14.598	3	4.866	2.494	.049
	Within Groups	2282.400	1170	1.951		
	Total	2296.998	1173			

Source: The authors

Concerning the first hypothesis, the One-Way ANOVA test revealed significant differences between the generational cohorts and attitudes towards terroir importance [F (3,1170) = 7.564, p < 0.005]. Consequently, the null hypothesis is rejected. As regards the second hypothesis, the One-Way ANOVA test did not unveil significant differences between the generational cohorts and perception of terroir as a wine/winery’s competitive advantage [F (3,1170) = 2.040, p > 0.05]. Henceforth, the null hypothesis cannot be rejected. Lastly, referring to the third hypothesis, One-Way ANOVA also revealed significant differences between the generational cohorts and perception of terroir for marketing communication [F (3,1170) = 4.866, p < 0.05]. As a result, the null hypothesis is rejected.

As the analysis of this study reveal that in two cases (attitudes towards terroir significance and terroir for marketing communication), the null hypothesis is rejected, at least two cohorts differ in their perceptions. Therefore, multiple comparisons of means were conducted to investigate in-depth which generational cohort differs from others (Table 7) using the post hoc Tuckey B comparisons test. In Table 7, each row with different letters beside the MV exposes significant

differences, starting with “a” for the highest mean score. Therefore, numbers with the same letters in a row reveal no statistical differences (i.e., perception towards terroir for competitive advantage).

Table 7: Tuckey B test between terroir attitudes and perceptions and generational cohorts

Dimensions measured	Gen Z	Gen Y	Gen X	BB
Attitudes towards terroir significance	4.80b	5.09ab	4.95b	5.25a
Terroir for competitive advantage	4.80a	4.89a	4.83a	4.99a
Terroir for marketing communication	4.96b	5.20ab	5.07b	5.31a

Source: the authors; Gen Z= Generation Z, Gen Y= Generation Y, Gen X= Generation X, BB= Baby Boomers

In respect of the first construct referring to attitudes towards terroir importance for a winery Tuckey’s B test indicated that the MV for the oldest cohort, i.e., Baby Boomers is significantly higher as compared to the younger cohorts. It also reveals that the youngest cohort (Generation Z) has the most negative attitude as compared to the other cohorts. As for the third construct, the findings suggest again that the oldest generational cohort holds the most favorable perception regarding terroir for marketing communication. On the other hand, the youngest generational cohort (Generation Z) has the most negative one.

It is also evident that the Baby Boomers and the Generation Y cohort as a entirety hold the same attitudes and perceptions towards the two dimensions examined. Likewise, the Generation X cohort and the Generation Z cohort have the same attitudes and perceptions towards the two dimensions examined and do not express cohort differences. In both cases the descending order from most positive to most negative attitudes and perceptions is as follows: Baby Boomers, Generation Y, Generation X and lastly, the Generation Z cohort.

5 DISCUSSION AND IMPLICATIONS

This study has provided interesting results that relate to the goals that were set. Specifically, this research focuses on five specific objectives. The first objective is to explore self-assessed knowledge of the concept of wine/winery terroir by wine consumers who have visited or is in their near intention to visit a winery in the prefecture of Drama, Greece. Results of the study revealed that 78.1% do not have adequate knowledge of what wine /winery terroir is (they have no knowledge, up to, some/limited knowledge). This finding is in line with the findings of Mamalis et al. (2023a) who found in their study that 76.5% of the respondents have limited knowledge of what terroir is. As to other studies, any comparison is with caution since previous studies explored how consumers and winery tourists define terroir (Spielmann & Gélinas-Chebat, 2012) and did not address self-assessed terroir knowledge.

The second objective of the study was to examine generational cohorts’ attitudes towards wine terroir significance (seven statements). Results reveal that for all statements the mean values ranged from 4.63-5.49 on a 7-

point Likert scale revealing that participants “somewhat agree” to the seven statements presented. Our findings are not comparable to other since we did not find previous research regarding winery visitors’ attitudes towards its terroir (as a whole and not per elements of it).

The third objective of the study was to examine generational cohorts’ perceptions of winery terroir as a competitive advantage of a winery (eleven statements). Results revealed that cohorts’ perceptions in mean values ranged from 4.20-5.34 on a 7-point Likert scale, indicating that participants “neither agree nor disagree” or “somewhat agree” to the eleven statements presented. However, these findings cannot be compared to previous ones, since we did not find other research referring to generational cohort winery visitors’ perceptions of winery terroir as a competitive advantage of a winery. The research we found was related to perception of terroir from the producer’s/winery’s point of view or residents’ commitment (e.g., Capitello et al., 2021) which is out of the focus of this study. Research referring to wine terroir and visitors has to do with terroir experience (e.g., Kastenholz et al., 2021, 2023) and these did not deal with generational cohorts. For example, the study by Kastenholz et al. (2021) examined wine terroir experiences via 137 comments (Tripadvisor) and found that tangible cultural heritage and natural landscapes are significant in providing memorable and recommendable wine terroir experiences.

The fourth objective of the study was to examine generational cohorts’ perceptions of winery terroir as a marketing communication tool (five statements). Results revealed that cohorts’ perceptions in mean values ranged from 4.76-5.43 on a 7-point Likert scale, meaning that cohorts “somewhat” agree that wine/winery terroir can be used for marketing communication purposes. Still, we cannot compare the findings of this study with similar ones, since we did not find prior research exploring this issue. The research we found was related to perception of terroir as a marketing communication tool from the producers/winery perspective or discusses the concept of terroir for communicative reasons (Tsiakis et al., 2022a, 2022b; Castelló, 2021; Riviezzo et al., 2017) which is out of the focus of this study. Other research we found was referring to wine terroir and marketing communication focus on specific aspects of terroir, such as natural or cultural environment, authenticity, etc., (e.g., Mingione et al., 2019; Bruwer & Rueger-Muck, 2019), while our research discusses it as a total concept.

Lastly, the 5th objective of the study was to examine any generational cohort differences based on attitudes towards wine/winery terroir significance, perceptions of terroir as a competitive advantage and perceptions of terroir for marketing communication. Of the three issues-dimensions examined, cohort differences were observed for the dimension referring to attitudes towards terroir significance and the perception of terroir for marketing communication. On the other hand, no differences were observed between cohorts for the dimension regarding terroir as a competitive advantage of a winery. It also revealed that two sets of cohorts had similar attitudes and perceptions, i.e., Baby Boomers with Generation Y, and Generation Z with Generation X (thus expressing no statistical differences). In all cases Baby Boomers had the strongest positive/favourable attitudes and perceptions and Generation Z the weakest/negative ones.

As beforementioned these findings cannot be compared to previous ones, since to our knowledge, no study explores wine generational cohorts' attitudes towards terroir significance or perceptions of terroir as a competitive advantage for wineries and perceptions of terroir as a marketing tool for wineries. For example, the study by Kastenholz et al. (2021) examined wine terroir experiences and not attitudes or perceptions and did not incorporate the generational cohort theory nor generational differences.

5.1 Theoretical implications

As Marlowe and Bauman (2019) note, terroir is an understudied topic, even though it is highly significant for the wine and wine tourism competitive market. Moreover, Thach et al. (2021) point out that as the study of generational cohorts and wine related issues are understudied, wine consumer behavior in relation to generational cohorts is a fruitful area for research. As such, seven gaps were identified in the overview of academic literature whereas this study contributed to decrease. These seven gaps as mentioned were lack of studies from the winery tourists' perspective regarding terroir and: self-assessed knowledge of the concept of terroir (1st gap); attitudes towards terroir and its significance (2nd); perceptions of terroir as a winery's competitive advantage element (3rd); and perceptions of terroir for wineries marketing communication (4th). Additional gaps identified were lack of studies that deal with multiple generational cohorts and wine terroir (5th); generational cohort attitudes and perceptions towards terroir as a winery's competitive advantage for marketing communication (6th) and generational cohort differences regarding wine terroir significance and perception of terroir as a winery's competitive advantage or for marketing communication (7th gap). Specifically, the 1st objective of this study (measurement of self-assessed knowledge of wine terroir from wine tourists from different generational cohorts) decreases the first gap and fifth abovementioned gaps in the literature. The second objective (exploring generational cohorts' attitudes towards wine/winery terroir significance) decreases the second, fifth, and partially the sixth gap identified in the literature. The third objective of this study (exploring generational cohorts' perceptions of wine/winery terroir as a competitive advantage of a winery) decreases the third, fifth, and partially the sixth gap identified in the literature. The fourth objective of this study (examining generational cohorts' perceptions of winery terroir for marketing communication) decreases the fourth, fifth, and partially the sixth gap identified in the literature. Lastly, the fifth objective of this study was to examine generational cohort differences based on the attitudes and perceptions, thus decreasing gaps 2-7, that were detected in academic literature.

Also, on a theoretical basis this study complements previous research by providing information from the wine consumer tourists' (actual and potential) perspective concerning winery/wine terroir, as a total concept and not on specific facets of it. Wine terroir marketing is an uprising issue and winery visitors (actual and potential) need to understand the concept, its elements, and its significance on different levels, such as for the winery's product, being a competitive advantage for the wine and the winery, and for marketing communication in order for their favorable winery and its

products to survive and thrive in the competitive wine market. Additionally, it applies the generational cohort theory and based on this provides with insight on generational cohort attitudes and perceptions of wine terroir. This insight is important as previous research points out (Inglehart, 1997). Lastly it enriched the body of marketing knowledge in the wine tourists' field by providing understanding with generational cohort differences based on their attitudes and perceptions of terroir. As to our knowledge these issues have either been under-researched or not researched at all.

5.2 Managerial implications

In practical terms, this study provides with knowledge from wine tourists from four generational cohorts as regards attitudes and perceptions towards winery/wine terroir. This information is of value for winery managers and marketing staff in order to implement marketing strategies adjusted when targeting specific generational cohorts.

First, the results of this study show that it is necessary to educate cohorts about the characteristics of wine and wine terroir, using different means depending on the cohort. For example, wineries can develop a YouTube channel informing potential customers about what wine terroir is, its elements, and its significance in wine production and the characteristics of the final product. The use of influencers referring to wines and its terroir can target the Generation Z cohort, since previous research (Deng et al., 2022; Thach et al., 2021) has found that this cohort is persuaded by influencer marketing. Moreover, Instagram and Snapchat can also be used targeting this cohort, since compared to other cohorts they use both more often, whereas the older ones use Facebook (Thach et al., 2021). Also, Bauman et al. (2020) pinpointed that the Generation Y and Generation X as compared to Baby Boomers use Web 2.0 information sources, especially their contacts' recommendations on social media and wine blogs. Moreover, wineries that accept visitors can educate cohorts based on their perceptions and attitudes towards terroir and explaining its significance in the stages of production and selling process by different approaches. For example, Generation X and Baby Boomers should be approached from the winemakers themselves and showcasing through wine tasting the impact of different aspects of the winery terroir, such as soil, cultivation procedure, varieties, microclimate, etc. Rachão et al. (2023) found in their study that Generation X and Baby Boomers desire to interact directly with the wine producers, while Rachão et al. (2023) and Stergiou (2018) found that Generation Z desires experiences from the winery visit. Therefore, experiences combined with terroir education and new technology that is entertaining (Rachão et al., 2023) would provide in this sense for the youngest cohort memorable tourist experiences (Stergiou, 2018), positive attitudes and perception towards terroir.

Lastly, this paper provides with social, environmental and economic implications which are interconnected to the managerial implications, and how winery managers and wine producing areas' officials will use terroir for attracting tourists. As regards the social implications of terroir, it is focused on the "human" factor of terroir which encompasses the history, the culture and the human interventions in the production stage, as well as the concept of origin (e.g., Vaudour, 2002, 2003; Capitello et al., 2021; Charters et al.,

2017; Castelló, 2021; Polyzos et al., 2024). These elements of terroir can be used successfully as a marketing communication tool, especially as Greece has a strong historical and cultural background that can be associated with wine tourism destinations (Athens-Macedonian News Agency (2023). As regards the environmental implications, these are focused on the human factor of terroir and specifically on the sustainable production process (e.g., Mastroberardino et al., 2020), production of organic (Marlowe & Bauman, 2019; Tsiakis et al., 2022b) and natural wines (Teil, 2012; Ding et al., 2023). These production practices of the human terroir element can be communicated by the managers. The elements of terroir and the communication of terroir by the winery managers will aid wineries and their products to build a “quality premium” and a higher reputation (Belletti, 1999). Therefore, the marketing and communication of wine terroir rises economic benefits for the wine production area attracting not only wine consumer tourists but non-wine consumer tourists too.

6 CONCLUSIONS

This research has provided a number of insights into the attitudes and perceptions of wine consumers of four generational cohorts in Greece who are winery tourists or intend to be one in the near future. It also identified similarities and differences in wine terroir attitudes and perceptions. As Thach et al. (2021) note, the literature on wine consumer behavior in relation to generational cohorts indicates that this is a fruitful area for research. Stergiou (2018) also points out that the future of wine tourism is placed on the younger generational cohorts and therefore it is imperative for wineries to gain knowledge of their attitudes and behavior. In total, by addressing five specific objectives it decreases the seven gaps identified in literature as abovementioned.

This study has several limitations. The first limitation relates to the sample size. While the total sample size analyzed statistically was 1174 participants when breaking the sample per cohort, it reveals that the sample size per cohort is small ranging from 122 (Baby Boomers) to 396 (Generation X). The second limitation originates from the data collection method, incorporating online nonprobability sampling and targeting wine consumers that have visited or intend to visit a winery. This limitation consequently led to the lack of generalization of findings, though it provides the basis for future research, i.e., employing a stratified sampling non-online method and targeting also non winery visitors and non-wine consumers. A third limitation of the study is that it is focused on visitors towards one specific country and region, namely the Drama region of Greece. Therefore, future research that connect generational cohorts with wine terroir attitudes and perceptions from different wine producing areas of the country and from other wine producing countries would be of interest. Lastly, another limitation is that it did not address issues such as wine consumption habits or self-assessed knowledge of the specific terroir facets. As noted, subsequent research could address these limitations individually and design them in such a way as to minimize them. Additionally, following research could focus only on qualitative research and gain

deep insights into the cohorts’ attitudes, perceptions, and behaviors towards wine and winery terroir through various qualitative methods.

Acknowledgments-Funding: This research was co-financed by the European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship, and Innovation, under the call RESEARCH—CREATE—INNOVATE (project code: T2EAK-02974 Drama terroir).

REFERENCES

- Anagnostou, E. & Tsiakis, T. (2023, May). What’s in a Name? Communicating Forms of Toponyms at Greek Wine Labels. In Conference Proceedings Trends in Business Communication 2022 (pp. 1-12). Wiesbaden: Springer Fachmedien Wiesbaden.
- Athens-Macedonian News Agency (2023) Greece is one of the most promising emerging wine tourism destinations, GWTO president says. Source: ANA-MPA. <https://www.amna.gr/en/article/714631/Greece-is-one-of-the-most-promising-emerging-wine-tourism-destinations--GWTO-president-says> Accessed the 12 th of October 2023, at 14:55.
- Barham, E. (2003). Translating terroir: the global challenge of French AOC labeling. *Journal of Rural Studies*, 19(1), 127–138.
- Batat, W. (2013). The Symbolic and Functional Dimensions of “Terroir” Products Among French Consumers. *European Advances in Consumer Research*, 10, pp. 259-260.
- Bauman, M. J., Velikova, N., Dodd, T. & Blankenship, T. (2020). Generational differences in risk perception and situational uses of wine information sources. *International Journal of Wine Business Research*, 32(2), 247-265.
- Belletti, G. (1999). Origin labelled products, reputation and heterogeneity of firms. Contribution appeared in Sylvander, B., Barjolle, D. and Arfini, F. (1999) (Eds.) “The Socio-Economics of Origin Labelled Products: Spatial, Institutional and Co-ordination Aspects”, proceedings of the 67th EAAE Seminar, pp. 240 – 259, October 28-30, 1999 Le Mans, France
- Brown, G. & Getz, D. (2005). Linking wine preferences to the choice of wine tourism destinations. *Journal of travel research*, 43(3), 266-276.
- Bruwer, J. & Alant, K. (2009). The hedonic nature of wine tourism consumption: an experiential view. *International Journal of Wine Business Research*, 21(3), 235-257.
- Bruwer, J. & Rueger-Muck, E. (2019). Wine tourism and hedonic experience: A motivation-based experiential view. *Tourism and Hospitality Research*, 19(4), 488-502.
- Capitello, R., Agnoli, L., Charters, S. & Begalli, D. (2016). Terroir in a Bottle: Segmenting Consumer Choices in Generation Y. In: Petruzzellis, L., Winer, R. (eds) *Rediscovering the Essentiality of Marketing*. Developments in Marketing Science: Proceedings of the Academy of Marketing Science. Springer, Cham.
- Capitello, R., Begalli, D. & Agnoli, L. (2013). Tourism experiences and wine experiences: a new approach to the analysis of the visitor perceptions for a destination. The case of Verona. In 7th Academy of Wine Business Research International Conference.
- Capitello, R., Sidali, K. L. & Schamel, G. (2021). Wine terroir commitment in the development of a wine destination. *Cornell Hospitality Quarterly*, 62(3), 313-323.
- Carmichael, B. A. & Senese, D. M. (2011). Competitiveness and sustainability in wine tourism regions: The application of a stage model of destination development to two Canadian wine

- regions. In *The geography of wine: Regions, terroir and techniques* (pp. 159-178). Dordrecht: Springer Netherlands.
- Carrà, G., Mariani, M., Radić, I. & Peri, I. (2016). Participatory strategy analysis: The case of wine tourism business. *Agriculture and agricultural science procedia*, 8, 706-712.
- Castelló, E. (2021). The will for terroir: A communicative approach. *Journal of Rural Studies*, 86, 386-397.
- Charters, S. & Fountain, J. (2006). Younger Wine Tourists: A study of generational differences in the cellar door experience. In J. Carlsen, S. Charters (Eds.) *Global wine tourism: Research, Management and Marketing*, pp. 153-160. Wallingford UK: Cabi.
- Charters, S., Spielmann, N. & Babin, B.J. (2017). The nature and value of terroir products. *European Journal of Marketing*, 51(4), 748-771.
- Charters, S. and Ali-Knight, J. (2002). Who is the wine tourist?. *Tourism management*, 23(3), 311-319.
- Cohen, E. & Ben-Nun, L. (2009). The important dimensions of wine tourism experience from potential visitors' perception. *Tourism and Hospitality Research*, 9(1), 20-31.
- Connolly, M. (2019). Factors Influencing Consumer Wine Choice: The Case of Wine Tourism. In: Sigala, M., Robinson, R.N.S. (eds) *Management and Marketing of Wine Tourism Business*. Palgrave Macmillan, Cham.
- Coroş, M. M., Pop, A. M. & Popa, A. I. (2019). Vineyards and wineries in Alba County, Romania towards sustainable business development. *Sustainability*, 11(15), 4036.
- Couder, J. & Valette-Florence, P. (2020a). Terroir and its Evocation: What a Wine Terroir of Origin Evokes? An Exploratory Qualitative Study of the Meaning of Terroir Product Consumption. In *Marketing Opportunities and Challenges in a Changing Global Marketplace: Proceedings of the 2019 Academy of Marketing Science (AMS) Annual Conference* (pp. 217-229). Springer International Publishing.
- Couder, J. & Valette-Florence, P. (2020b). Terroir, My Beautiful Terroir, Is My Wine the Best One? AN. In *2020 AMA Summer Academic Conference* (p. 531).
- Cross, R., Plantinga, A. J. & Stavins, R. N. (2011). The value of terroir: Hedonic estimation of vineyard sale prices. *Journal of Wine Economics*, 6(1), 1-14.
- Deng, D. S., Seo, S., Li, Z. & Austin, E. W. (2022). What people TikTok (Douyin) about influencer-endorsed short videos on wine? An exploration of gender and generational differences. *Journal of Hospitality and Tourism Technology*, 13(4), 683-698.
- Ding, Y., Wei, R., Wang, L., Wang, W., Wang, H., & Li, H. (2023). Exploring the ecological characteristics of natural microbial communities along the continuum from grape berries to winemaking. *Food Research International*, 167, 112718.
- Dubos, J. (1984). Importance of "terroir" as a factor of the qualitative differentiation of wines [climate, soil; agronomical, psychosociological and economic aspects, *Le Bulletin de l'OIV* (France).
- Espejel, J. & Fandos, C. (2009). Wine marketing strategies in Spain: A structural equation approach to consumer response to protected designations of origin (PDOs). *International Journal of Wine Business Research*, 21(3), 267-288.
- Espejel, J., Fandos, C. & Flavián, C. (2011). Antecedents of Consumer Commitment to a PDO Wine: An Empirical Analysis of Spanish Consumers. *Journal of Wine Research*, 22(3), 205-225.
- Garibaldi, R., Stone, M. J., Wolf, E. & Pozzi, A. (2022). Wine tourism and consumer behavior. *Routledge Handbook of Wine Tourism*, pp. 132-142. Routledge International.
- Giacomarra, M., Galati, A., Crescimanno, M. & Vrontis, D. (2020). Geographical cues: evidences from New and Old World countries' wine consumers. *British Food Journal*, 122(4), 1252-1267.
- Gómez, M. & Molina, A. (2012). Wine tourism in Spain: denomination of origin effects on brand equity. *International journal of tourism research*, 14(4), 353-368.
- Hall, C. M. & Mitchell, R. (2000). Wine tourism in the Mediterranean: A tool for restructuring and development. *Thunderbird International Business Review*, 42(4), 445-465.
- Harrington, R. J., Ottenbacher, M. C., Marlowe, B. & Siguda, U. (2019). Wine Tourism in South Africa: Valued Attributes and Their Role as Memorable Enticements. *Wine Tourism Destination Management and Marketing: Theory and Cases*, 445-461.
- Holland, T., Smit, B. & Jones, G. V. (2014). Toward a conceptual framework of terroir tourism: A case study of the Prince Edward County, Ontario Wine Region. *Tourism Planning & Development*, 11(3), 275-291.
- Inglehart, R. (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*, NJ: Princeton University Press.
- Kamenidou, I. E. C., Mamalis, S., Pavlidis, S. & Bara, E. Z. (2018). 17. A Multi-Generational Approach of Destination Components In Actual Destination Choice. *Tourman 2018*, 435.
- Karagiannis, D. & Metaxas, T. (2020). Sustainable wine tourism development: Case studies from the Greek region of Peloponnese. *Sustainability*, 12(12), 5223.
- Karapetsas, N., Alexandridis, T.K., Bilas, G., Theocharis, S. & Koundouras, S. (2023). Delineating Natural Terroir Units in Wine Regions Using Geoinformatics. *Agriculture*, 13, 629.
- Kastenholz, E., Cunha, D., Eletxigerra, A., Carvalho, M. & Silva, I. (2021). Exploring wine terroir experiences: A social media analysis. In *Advances in Tourism, Technology and Systems: Selected Papers from ICOTTS20*, 2, 401-420. Springer Singapore.
- Kastenholz, E., Paço, A. & Nave, A. (2023). Wine tourism in rural areas—hopes and fears amongst local residents. *Worldwide Hospitality and Tourism Themes*, 15(1), 29-40.
- Kruger, M. & Viljoen, A. (2021). Terroir wine festival visitors: uncorking the origin of behavioural intentions. *Current Issues in Tourism*, 24(5), 616-636.
- LaTour, K. A., Joy, A. & Noujeim, R. (2021). Developing wine appreciation for new generations of consumers. *Cornell Hospitality Quarterly*, 62(3), 337-345.
- Laville, P. (1990). Le terroir, un concept indispensable a l'elaboration et á la protection des appellations d'origine comme a la gestation des vignobles: le cas de la France", *Le Bulletin de l'OIV*, 709, 217-241.
- Laville, P. (1993). Unités de terroir naturel et terroir. Une distinction nécessaire pour redonner plus de cohérence au système d'appellation d'origine", *Le Bulletin de l'OIV*, 745, 227-251.
- Law 4276/2014 (Government Gazette 155/A/30-07-2014). Simplification of operating procedures of tourist businesses and tourist infrastructures, special forms of tourism and other provisions https://www.elinyae.gr/sites/default/files/2019-07/155a_2014.1454404714046.pdf (in Greek)
- Law 4495/2017 (Official Gazette 167/A/3-11-2017). Control and protection of the Built Environment and other provisions. https://www.elinyae.gr/sites/default/files/2019-07/167A_2017.1510144711841.pdf (In Greek)
- Law 4582/2018 - Official Gazette 208/A/11-12-2018 (Codified): Thematic tourism Special forms of tourism - Arrangements for the modernization of the institutional framework in the field of tourism and tourism education - Support for tourism entrepreneurship and other provisions.
- Lenglet, F. (2014). Influence of terroir products meaning on consumer's expectations and likings. *Food quality and preference*, 32, 264-270.
- López, A.M. (2022). Wine tours and tastings in Europe listed on Tripadvisor 2022, by country.

- <https://www.statista.com/statistics/1088601/wine-tastings-tours-europe-by-country/> Accessed the 5 th of November 2023, at 13:35.
- López, A.M. (2023). World's main enotourism destinations 2021. <https://www.statista.com/statistics/892901/leading-enotourism-countries-worldwide/> Accessed the 5 th of November 2023, at 12:45.
- Mamalis, S., Kamenidou, I. (E.), Karampatea, A., Bouloumpasi, E. & Skendi, A. (2023a) Do wine consumers know the meaning of wine terroir? Preliminary results from ongoing research in Greece? Proceedings of the 11th International Conference on Contemporary Marketing Issues, Corfu, Greece, 12-14 July 2023, p. 92-98
- Mamalis, S., Kamenidou, I. (E.), Karampatea, A., Bouloumpasi, E. & Skendi, A. (2023b). Are Wine Terroir Characteristics Important? Generational Cohort Differences. In Vrontis, D., Weber, Y. & Tsoukatos, E. (Eds) Proceedings of the 16th Annual Conference of the EuroMed Academy of Business, Business Transformation in Uncertain Global Environments, September 27-29 2023, Vilnius, Lithuania p. 980 Conference Book of Proceedings (Book Series) – ISSN 2547-8516
- Malerba, R. C., Kastenholz, E. & Carneiro, M. J. (2023). Family-friendly wine tourism? The challenge of supplying child-inclusive wine terroir experiences. *Journal of Vacation Marketing*, 13567667231167885.
- Marlowe, B. (2016). Organic Oregon: An emerging experience in terroir tourism. In Proceedings of the XI International Terroir Congress, McMinnville, OR, USA (pp. 183-188).
- Marlowe, B. & Bauman, M. J. (2019). Terroir tourism: experiences in organic vineyards. *Beverages*, 5(2), 30.
- Mastroberardino, P., Calabrese, G., Cortese, F., & Petracca, M. (2020). Sustainability in the wine sector: An empirical analysis of the level of awareness and perception among the Italian consumers. *British Food Journal*, 122(8), 2497-2511.
- McCordle, M. & Wolfinger, E. (2009). *The ABC of XYZ: understanding the global generations*. Sydney: UNSW Press.
- Meinert, L. D. (2018). The science of terroir. *Elements: An International Magazine of Mineralogy, Geochemistry, and Petrology*, 14(3), 153-158.
- Mingione, M., Bendixen, M. & Abratt, R. (2019). Sources of wine brand authenticity in the digital era. In Proceedings of the Sinergie-SIMA 2019 Conference on Management and Sustainability: creating shared value in the digital era (pp. 427-443). Rome, Italy: Sapienza University.
- Moran, W. (2001). Terroir—the human factor. *Australian and New Zealand Wine Industry Journal*, 16(2), 32–51.
- Nella, A. & Christou, E. (2014). Segmenting wine tourists on the basis of involvement with wine. *J. Travel Tour. Mark.*, 31, 783–798.
- OIV. (2010), “Definition of Vitivinicultural ‘Terroir’. Resolution OIV/VITI 333/2010”, available at: <https://www.oiv.int/public/medias/379/viti-2010-1-en.pdf> Accessed the 12 th of October 2023, at 11:50.
- Patterson, T. & Buechsenstein, J. (2018). *Wine and place: A terroir reader*. California: Univ of California Press.
- Pelet, J. É., Durrieu, F. & Lick, E. (2020). Label design of wines sold online: Effects of perceived authenticity on purchase intentions. *Journal of Retailing and Consumer Services*, 55, 102087.
- Peršurić, A. S. I., Damijanić, A. T. & Šergo, Z. (2019). The wine tourism terroir: Experiences from Istria. *Tourism in Southern and Eastern Europe*, 5, 319-333.
- Plakidis, L. (2023). DramOINO knowledge: 10 Days of Wine Elevation. <https://a8inea.com/draminognosia-10-imeres-inikis-anatasis/> Accessed the 5 th of November 2023, at 12:45.
- Polyzos, E., Fotiadis, A., & Huan, T.-C. (2024). The asymmetric impact of Twitter Sentiment and emotions: Impulse response analysis on European tourism firms using micro-data. *Tourism Management*, 104, 104909.
- Rachão, S., Breda, Z., de Oliveira Fernandes, C., Joukes, V. & Ferreira, C. (2023). Food-and-wine tourists’ willingness to pay for co-creation experiences: A generational approach. *Journal of Hospitality and Tourism Management*, 56, 245-252.
- Ribeiro, J.C. & Santos, J.F. (2007). Consumer perception of Portuguese quality wine and the region-of-origin effect”, presented at the 47th Congress of the European Regional Science Association, Paris.
- Riviezzo, A., Garofano, A., Granata, J. & Kakavand, S. (2017). Using terroir to exploit local identity and cultural heritage in marketing strategies: An exploratory study among Italian and French wine producers. *Place Branding and Public Diplomacy*, 13, 136-149.
- Santos, V., Dias, A., Ramos, P., Madeira, A. & Sousa, B. (2021). Mapping the wine visit experience for tourist excitement and cultural experience. *Annals of Leisure Research*, 26(4), 1-17.
- Silva, C., Marques, J. & Abrantes, J. L. (2021). Nature-Based Tourism Travel Planning: A Generational Approach. *Advances in Tourism, Technology and Systems: Selected Papers from ICOTTS20*, 1, 450-457. Springer Singapore.
- Skalkos, D., Roumeliotis, N., Kosma, I. S., Yiakoumettis, C. & Karantonis, H. C. (2022). The Impact of COVID-19 on consumers’ motives in purchasing and consuming quality Greek wine. *Sustainability*, 14(13), 7769.
- Spielmann, N. & Charters, S. (2013). The dimensions of authenticity in terroir products. *International Journal of Wine Business Research*, 25(4), 310-324.
- Spielmann, N. & Gélinas-Chebat, C. (2012). Terroir? That's not how I would describe it. *International Journal of Wine Business Research*, 24(4), 254-270.
- Stergiou, D. P. (2018). An importance-performance analysis of young people’s response to a wine tourism situation in Greece. *Journal of wine research*, 29(4), 229-242.
- Sykalia, D., Chrisostomidou, Y. & Karabagias, I. K. (2023). An Exploratory Research Regarding Greek Consumers’ Behavior on Wine and Wineries’ Character. *Beverages*, 9(2), 43.
- Taylor, C., Barber, N. & Deale, C. (2010). Environmental attitudes towards wine tourism. *International Journal of Wine Research*, 2, 13-26.
- Teil, G. (2012). No such thing as terroir? Objectivities and the regimes of existence of objects. *Science, Technology, & Human Values*, 37(5), 478-505.
- Thach, L., Riewe, S. & Camillo, A. (2021). Generational cohort theory and wine: analyzing how gen Z differs from other American wine consuming generations. *International Journal of Wine Business Research*, 33(1), 1-27.
- Tomić, N. & Božić, S. (2015). Factors affecting city destination choice among young people in Serbia. *Revista de turism-studii si cercetari in turism*, (19), 15-22.
- Tsiakis, T., Anagnostou, E. & Granata, G. (2022a). Exploring the Role of Toponymy in Wine Naming Strategy: A Greek Case Study. In International Conference of the International Association of Cultural and Digital Tourism (pp. 447-456). Cham: Springer Nature Switzerland.
- Tsiakis, T., Anagnostou, E., Granata, G. & Manakou, V. (2022b). Communicating terroir through wine label toponymy Greek wineries practice. *Sustainability*, 14(23), 16067.
- Van Leeuwen, C. & Seguin, G. (2006). The concept of terroir in viticulture. *Journal of Wine Research*, 17(1), 1–10.
- Van Leeuwen, C., Roby, J. P. & de Rességuier, L. (2017). *Practical Winery and Vineyard. Understanding Terroir Expression*. <https://winebusinessanalytics.com/columns/section/126/article/187725/Understanding-emTerroir-em-Expression> Accessed the 12 th of November 2023, at 18:45.
- Van Leeuwen, C., Roby, J. P. & de Rességuier, L. (2017). *Understanding Terroir Expression*.

- <https://winebusinessanalytics.com/modals/article/viewArticle.cfm?articleId=187725> Accessed the 4 th of November 2023, at 10:45.
- Vaudour, E. (2002). The Quality of Grapes and Wine in Relation to Geography: Notions of Terroir at Various Scales. *Journal of Wine Research*, 13(2), 117–141.
- Vaudour, E. (2003), *Les Terroirs Viticoles: Définitions, Caractérisation et Protection*, Dunod.
- Velissariou, E., Galagala, A. & Karathanos, A. (2009). Wine tourism. Planning and development of a wine route network in the region of Thessaly in Greece. *Tourismos*, 4(4), 311-330.
- Vrontis, D., Thrassou, A. & Czinkota, M.R. (2011). Wine marketing: A framework for consumer-centred planning. *Journal of Brand Management*, 18(4–5), 245–263.
- Warman, R.D. and Lewis, G.K. (2019). Wine place research: Getting value from terroir and provenance in premium wine value chain interventions. *International Journal of Wine Business Research*, 31(4), 493–508.
- Weigert, M., Bauer, A., Gernert, J., Karl, M., Nalmpatian, A., Küchenhoff, H. & Schmude, J. (2022). Semiparametric APC analysis of destination choice patterns: Using generalized additive models to quantify the impact of age, period, and cohort on travel distances. *Tourism Economics*, 28(5), 1377-1400.
- Wey Smola, K. & Sutton, C. D. (2002). Generational differences: revisiting generational work values for the new millennium. *Journal of Organizational Behavior*, 23(4), 363–382.
- White, R. E. (2020). The value of soil knowledge in understanding wine terroir. *Frontiers in Environmental Science*, 8, 12.
- Williams, K. C. & Page, R. A. (2011). Marketing to the generations. *Journal of behavioral studies in business*, 3(1), 37–53.
-

SUBMITTED: OCT 2023

REVISION SUBMITTED: JAN 2024

ACCEPTED: FEB 2024

REFEREED ANONYMOUSLY

PUBLISHED ONLINE: 30 JUNE 2024