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MASTER THESIS

**DEVELOPMENT OF CONNECTED VIRTUAL WINE TOURISM EXPERIENCE WITH QR
CODE INTEGRATED ON WINE LABEL**

FOR DOMAINE LA LOUVIÈRE

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ABSTRACT AND KEYWORDS

This master thesis was completed during the last semester of the WINTOUR 2021-2023 course whilst undertaking a professional internship at Domaine La Louvière.

The thesis represents a project on developing a connected virtual wine tourism product promoted by a QR code on a wine label, serving as an innovative promotional tool for wineries and the region. The paper provides an overview of relevant literature, the results of a study of consumer behaviour and attitudes towards such offers, and also a model of a tourist offer that can be used by wineries and modified according to their needs and interests. This project also contains a SWOT analysis of the winery in order to get a better overview of the current situation.

Keywords: QR code, virtual wine tourism experience, AOC Malèpere, Languedoc.

LIST OF ABBREVIATIONS

AOC: Appellation d'Origine Contrôlée

B2B: Business to business

B2C: Business to customer

Ha: Hectares

IGP: Protected geographical indication

QR code: Quick Response code

SWOT: Analysis based on Strengths, Weaknesses, Opportunities and Threats of the company, product and etc.

VR: Virtual reality

1. INTRODUCTION

Due to the ever-more active development of technology and more simplified and faster ways of obtaining information, we often encounter such a tool as QR codes.

This tool has found its application in the wine business, providing instant access to information about the winery or the region in which it is located. Most often, we meet this opportunity at the wineries, when the tourist can navigate the territory and receive relevant information independently; or as a source of additional information, for example, when purchasing a boutique. However, in most cases, we must be at the winery to access this tool.

How often do we come across QR codes on a wine bottle which will allow us to instantly get much more information than what is already on the label?

Despite its simplicity, this tool is rarely used by wineries to convey information to the end consumer through the application on the wine label. At the same time, it can effectively promote both the product and the winery itself, with the possibility of creating a virtual tourism product accessible from anywhere in the world. After all, we pick up this or that bottle of wine much more often: in the supermarket, at dinner with friends or family, in the evening with a book, in a restaurant or on vacation than we come to a particular winery. It is what this thesis of the Master of Innovation in Tourism 2023 is dedicated to.

1.1 Thesis Bases and Proposal

Modern information technologies constantly evolve and penetrate various areas of our lives. In particular, more and more companies are using QR codes to promote their business and facilitate consumer communication with their brand. This tool is a specific matrix barcode that can be read using the camera of a smartphone or tablet, allowing the users to instantly and easily obtain information about a company, product or service.

In the current digital era of business and marketing, when all our interactions take place through our mobile devices: from transactions to payments and online purchases, it is already becoming evident that this tool can also be used to increase the effectiveness of wineries' marketing campaigns and be one of the budget advertising media, as it requires a small number of fundings and at the same time to be aimed at a vast audience that by 2023 has already met with this concept and can read it.

Objectives

This work sets several objectives to allow wineries to integrate an innovative tourist offer that allows them to offer activities to tourists and effectively promote the company and products in general, distinguishing it from similar offers on the market.

- 1) Assess the effectiveness of QR codes as a promotional tool for winery tourist offers, and evaluate their impact on customer engagement and awareness.
- 2) Investigate customer attitudes towards QR codes and their impact on the consumer experience: explore customer perceptions, opinions, and attitudes in the context of winery tourist offers; identify factors influencing customer satisfaction and the overall consumer experience when interacting with QR codes.
- 3) Enhance sales of wine and tourism offers by strategically utilising QR codes by determining the key elements that should be included in QR code content to communicate with customers and increase sales effectively.
- 4) Provide practical guidelines for wineries regarding QR code usage for a virtual tourism experience.

By achieving these objectives, this master's thesis aims to contribute to understanding QR code effectiveness in promoting virtual winery tourist offers, offer practical guidelines for wineries, and support the development of effective marketing strategies in the wine tourism industry.

This paper will consider using a QR code to promote the tourist offers of wineries. The focus will be on the effectiveness of this tool among customers, their attitude towards them, and improving the consumer experience in the process of communication with the brand further to increase sales of both wine and tourism offers. In addition, recommendations will be given for wineries on where and how to use QR codes and what to look for when creating content that will be encoded in them.

In order to achieve the objectives of this project, research has been conducted in the AOP Malviès wine region, where the author completed a master thesis internship between February and June 2023 in Domaine La Louvière, Languedoc, France. Initially, the winery did not have much experience promoting its tourism experiences, incl. using QR codes, making it a promising place for research.

The methodological approach to this research is qualitative and exploratory, implemented through consistent and interdependent research, namely the information collected by the author during his stay at Domaine, the SWOT analysis carried out and the survey of customers and potential visitors conducted by e-mail as well as through social networks, to obtain information about consumer behaviour and the effectiveness of such an interactive marketing tool. In addition, a study of relevant literature was conducted to understand better the current situation and the possible experience of using technologies by other companies.

This work is justified by the great popularity of the application of technology in everyday life and, at the same time, is of great importance due to the need for more research in the field of wine tourism.

This project can be helpful for wineries that want to increase their brand awareness among customers, improve the attendance of their tourism experience and be able to stand out from other companies in the segment, as well as for regional organisations and local agents who want to develop tourism offers for the wine regions and destinations, attracting more and more visitors. The study results can be used to develop effective marketing strategies, optimise the sales process, and improve interaction with customers, depending on the targets of the companies.

1.2 Introduction of the Company

Domaine La Louvière is a French winery owned by German businessman Klaus Grohe for 30 years and managed by his son Nicolas Grohe. The winery is located in the western part of the Languedoc-Roussillon region, near Carcassonne, famous for its old castle town, and a 15-minute drive from the city of Limoux, where Cremant is produced, and the longest carnival in the world is being held.

Domaine La Louvière is all about preserving the land's natural beauty and respecting the environment. From their organic farming methods to environmentally friendly practices in the cellar, they are committed to producing wines that are not only delicious but also good for the planet, with the ambition to become carbon-neutral soon with many technologies used, such as solar panels around the winery and others.

The winery has 50 ha vineyards with international grape varieties, which they use to produce organic wines under the name AOC Malepère and IGP Pays d'Oc in different styles and utilising different techniques and materials, from the growing area to harvesting and ageing. Some of their red wines and one white wine are aged in barrels, while others are in stainless steel tanks. This year also saw the first experimental release of red natural wine, labelled under the Vin De France, to understand the market's perception, primarily French and German.

In addition, the creative component of the brand, namely Wolves, is quite remarkable. Initially, according to local legends, the territory of the winery was often visited by wolves who rested before their hunt. All this gave the name of the area - La Louvière. Now, these animals are depicted on all winery labels, helping to express the character of local wines and differentiate them from competitors.

The main markets are France and Germany, but they also export their wines to China, Lithuania, Switzerland, USA and Belgium. At the same time, there is excellent potential to increase the share of exports with a possible increase in the number of countries where products are exported, which is one of the main goals for the development of the winery in the coming years.

Describing tourism offerings, the winery offers different experiences for tourists in four languages: English, French, Spanish and German. There is an option to choose from walking through the vineyards with a guide with further tasting at the winery or having a walk alone with guided tasting after; a gastronomic experience with a combination of the local traditional dish cassoulet and red wines, visiting the winery itself, as well as the possibility of holding private events using specially designated premises.

The main idea of the winery is that all their offers can be adjusted to the needs of the tourist. As proof of these words, an experience of visiting the winery for people with hearing or visual disabilities was created when a tactile study of the vineyards is carrying out, and a workshop after with the creation of a personal blend under the guidance of the winery staff.

1.3 Internship Tasks and Activities

From February through June 2023, the master thesis internship at Domaine La Louvière was conducted, which helped form the practical foundation for this thesis and allowed a deeper understanding of the functioning of wineries and their interaction with customers both in the direction of B2B and B2C marketing.

The winery initially set the goal of working in the direction of Digital marketing, increasing its presence in various social networks and increasing the interest in the brand of more people. The primary responsibility was to write content to promote wines and tourism experience on the Internet, creating related materials such as flyers, posters, catalogues and price lists. In the course of work, in addition to the main tasks, the role was supplemented by participation in specialised exhibitions. This allowed a deeper understanding of consumer behaviour and their needs, especially the French mentality, which also positively created a different marketing strategy. In addition, the author actively participated in tastings and wine experiences at the winery with guests and organised events.

In addition to these established tasks, the internship included searching for potential importers and distributors of wines to increase the share of exports and the resulting sales of their products. The main focus was creating an effective strategy for entering a new market, with the necessary brand kit and all marketing materials to identify the winery and interest a potential partner in further communication. The United States of America was chosen as the target market during the internship. Therefore, a market study and additional work were also conducted with wine competitions and experts evaluating wines. These critical reviews allow the winery to promote itself in the US market actively.

During the internship, different tasks and projects were implemented to give a student a better understanding of how the business works and what is necessary to improve in the winery. Several desk

research and survey were conducted to collect all the required information to develop a proposal for the innovative promotional tool for the winery tourism offer.

1.4 Bibliographic Research

1.4.1 Wine Tourism Overview

The most common definition of wine tourism is that it has been defined as different activities such as visiting vineyards, wineries or wine-related events, where tourists can enjoy a combination of wine tasting and experiencing the attributes of a wine region (Hall, C. M., & Macionis, N. 1998). More and more wineries are interested in developing their offers as it helps to generate revenue for a local community, region or state (Vukovic, D. B., Maiti, M., Vujko, A., & Shams, R. (2020). (Martínez-Falcó et al., 2023) state that wineries that offer wine tourism products tend to have a more excellent strategic vision, given that they recognise the capacity of this kind of activity to increase their competitiveness.

At the same time, it has been demonstrated (Croce, E., & Perri, G., 2017) that people willing to do food or wine tourism are essentially cultural tourists opened to new experiences with the idea of becoming more knowledgeable. They have a desire to spend time on educational activities through guided tours, tastings and other experiences. That is why wineries need to develop their activities, focusing not only on promoting their products and future purchases but providing relevant content that can help engage people toward brand loyalty. The educational component can foster a sense of connection and appreciation for the winery's products, leading to increasing brand engagement.

The world population is more than 8 billion people, where 64,4% actively use the internet, especially with 5,48 billion through their mobile phones (Digital Around the World — DataReportal – Global Digital Insights, 2023). It is reasonable to believe that wine tourists familiar with digital wine tools such as mobile applications are more prone to approach online wine experiences (Gastaldello et al., 2022). Consumers also continually look for and engage in consumption experiences across all aspects of their everyday lives (Connolly, M., 2019). It shows the importance of wineries having their online presence, activities and also unique content, which creates interaction, leads consumers to share their experiences on social networks and positions the brand as relevant to the target. It will lead to success in a highly competitive global wine market (Viana, N. A. (2016). Over the last few years, the world of wine has witnessed numerous changes and significant growth in wine tourism as a means to promote the businesses, wine regions and their products driven by the changing consumer preferences and advancements in different technologies. Especially many wineries started to focus on online presence and virtual events influenced by the latest pandemic situations worldwide when all tourism was put on hold.

COVID-19 caused significant changes influencing different factors relevant to all destinations and wine tourism. Virtual wine tourism has lately become an innovative and important tool for promoting activities for wineries and the answer to the obstacles caused by the global epidemic. It is possible to offer interactive tasting experiences through video conferencing or live streaming sessions; winemakers or sommeliers guide participants through wine tastings, sharing insights on aroma and flavour profiles, production techniques and food matching. These provide accessibility to a broader audience, regardless of geographical constraints. The use of different technologies can facilitate the interaction with actual customers and potential visitors, allowing the development of pre-experiences in a virtual form that might encourage future onsite visits by giving customers a first impression of the winery (Garibaldi, R., & Dixit, S. K., 2022). Several studies have revealed that wine tourism helps to engage consumers emotionally with the values that wine symbolises and predisposes visitors to long-term loyalty (Sigala, M., 2019; Mitchell & Hall, 2004).

Furthermore, online wine tourism experiences can boost the international acknowledgement of wine of the region and region itself. Consumers often feel so strongly about the wines they have experienced themselves that they actively promote those wines and wine regions to others, as shown in focus groups conducted to understand better customer behaviour (Connolly, M., 2019).

Wine tourism plays a crucial role in regional development by promoting the brand of the destination, as wine-producing regions often develop their identities based on culture, heritage and landscapes, which is important for wine tourists. Those practices can lead to increasing investments, infrastructure development, and improved regional image (Carlsen & Charters, 2016). At the same time, virtual wine tourism can help to get attention to the area, and products, where the industry has not encountered a booming phase (Santini, C., 2019), as we can see in the case of the Languedoc region, France or it, is a kind of activities which can also be provided during the low season, to attract more people during their pre-actional stages of travelling activities.

It is important to remember that those kinds of virtual tourism activities and offers should not be seen as a substitute for regular wine tourism on-site but rather as a marketing tool to keep connections with existing consumers alive or attract new ones, even those who are not (yet) regular wine tourists and establishing direct contact (Gastaldello et al., 2022). Moreover, virtual experiences can easily be shared through social media, generating free and organic promotion and word-of-mouth marketing, which might be a cost-effective solution for wineries, mainly speaking about small and medium-sized enterprises.

It is also obvious that using different platforms or tools to make online experiences can provide businesses with valuable data on consumer preferences and behaviours which can be utilised later to personalise marketing strategy, tailor product offerings, and enhance customer relationships.

With the advance of technology providing new tools for wineries to market themselves through online tours, this research intends to fill the gap by exploring how QR-codes on wine bottles with online activities can enhance customers' wine experience, further purchase and visit the winery and the region in real life.

1.4.2 Wine Label Design as a Promotional Tool and Wine Buying Criteria

As wine is an experiential product (Higgins et al., 2014), it can only be evaluated after being purchased by a large part of customers and needs to be experienced. Nowadays, in the world of wine, where customers are often faced with numerous options in the market, it is challenging to choose the right bottle. A wine label's visual appeal has all the power to capture attention and evoke emotions, as it can be a promotional tool for wineries to differentiate their product from others on the market shelves. Labels are considered the second most crucial predictor of wine purchase intent after the price (De Mello, L., & Pires, R., 2009).

It has been noted that label designs can be categorised into three genres: traditional (images of chateaux and vineyards), contemporary (less information, more of a sense of style) or novelty (to capture the consumers with some fun labels) (Sherman, S., & Tuten, T. (2011)). It is conceivable that launching new wine bottle designs, different to traditional ones, may help to access a new target audience, namely new generations of wine consumers. Research suggests that many consumers associate specific label design attributes or information mentioned with wine quality and taste or the overall perception of the wine.

Much of the recent literature has been focusing majorly on the front label. However, it has been concluded that back labels are meaningful too (Lockshin, L., & Corsi, A. M., 2012), but comparative studies have not yet been done between front and back labels. It is crucial to consider the front and back labels as integral components of wine brand identity; wine producers should create a holistic and compelling package that effectively enhances consumer experiences and influences purchasing decisions.

At the same time, customers decide to make their purchasing decision based on label information (Heslop et al., 2010). Including information about grapes, region, tasting notes, and food pairings to assess the wine's suitability for their preferences and occasions. Several researchers have noted that it can contribute to consumers' understanding, appreciation and emotional connection with the brand, which might lead to further visits to the wineries and word-of-mouth marketing.

It has been noted that having more information about the appellation, grapes, and production technologies allows wineries to receive a more favourable final assessment of the tasting results (Saïdi, M., & Giraud, G., 2020). Another survey in the Australian market (Mueller et al., 2010a, b)

showed that winery history, taste descriptions and food pairings were the most important wine back label statements. In contrast, wine ingredient information had a large negative impact.

The back label allows wine producers to tell their brand story and engage consumers on a deeper level. Including narratives about the winery's history, family heritage, or the winemaker's philosophy creates an emotional connection and adds value to the overall wine experience. Personal anecdotes, sustainability initiatives, or community involvement can resonate with consumers and influence their purchasing decisions, fostering brand loyalty and advocacy.

Wine enthusiasts often appreciate learning about the winemaking techniques employed and the specific vineyard where the grapes were grown. The back label can be served as a platform for wine producers to share this information, providing transparency and fostering a connection between consumers and the winemaking process: fermentation methods, ageing processes, sustainable practices, and vineyard characteristics contribute to consumers' perceptions of quality and authenticity (Mueller et al., 2011).

1.4.3 QR-codes and the Wine Sector

In recent years, wine producers have embraced innovative approaches to enhance engagement with the brand and provide additional information through the use of QR codes on the back labels as it provides a convenient way to access more detailed information, which enriches the consumer's final experience. These QR codes, which can be scanned using smartphones or tablets, offer both producers and consumers a range of benefits and opportunities, mainly immediate online content available for users. It is important in the wine sector due to the peculiar characteristics of this product: many consumers do not simply buy a bottle of wine on the shelf for its particular use; they buy its heritage, quality, territory, production processes, and specific organoleptic features.

The research conducted in Italy showed that many wine bottles there had information encrypted in a QR code, which was divided by the authors (Acuti, Diletta, et al., 2022) into two categories: utilitarian (information about the terroir, grapes, and vinification process) and hedonistic (combination with food, serving temperature, and organoleptic characteristics of wines). However, the result of the study of wine bottles that had QR codes on the label and the content contained in it was that this tool is more often used for the more extensive presentation of technical information about wine (both in written and video format) or simply leads to the main page of the winery. At the same time, earlier studies show that technical information about wine is not enough for most consumers; they want to know more about the winery and its history, especially for consumers little versed in wines.

While wineries use QR codes in various ways, brand website pages are still the most frequent link shared. The product's technical files and the website's homepage are the most common links within

brand-website pages. The main aspects of the communication observed have been classified in terms of hedonic and functional contents, where the former refers to the pleasure and the amusement of the consumer, and the latter refers to the product's technical features. On website homepages, hedonic aspects prevail, whereas functional aspects are more abundant in the wine technical files. Therefore communication through QR-code use should reflect all of these product conditions, transmitting both technical information, which is very important, especially for demanding consumers, and hedonic information that can affect consumer preferences through emotion.

QR Codes are a good fit for almost any sector, but for wine, they offer a particular benefit (Brabazon et al., 2014). For example, by using QR codes, companies can now communicate regularly and cost-effectively with consumers, as this method requires little or no cost to modify content embedded in the codes as needed (Ryu, J.S., Murdock, K., 2013).

They might be especially relevant for younger wine consumers that are making purchases out of convenience, as they do not have a significant amount of wine knowledge and are more likely to be engaged electronically when compared to the more traditional wine purchaser (Lecat & Pelet, 2011).

Furthermore, QR codes enable wine producers to gather valuable data about consumer preferences, behaviours, and purchasing patterns. By utilising unique QR codes for each bottle or product line, producers can track consumer interactions, such as scans and website visits, the place of the scan, and the device which has been used for scanning and use this information to personalise future marketing efforts and build relevant strategies. This data-driven approach allows producers to tailor their offerings to specific consumer segments, enhancing customer satisfaction and loyalty (Chung & Fischer, 2019; Bruwer & Li, 2009). Moreover, with integrated online tourism activities, it can create an innovative product in the market, enhancing its uniqueness and differentiating it from other brands.

2. METHODOLOGICAL APPROACH

This chapter of the thesis presents and justifies the methodology used to reach the study's goals and create an innovative proposal for the wine tourism product for the winery. More specifically, this chapter consists of 4 main sections: the first one outlines the external analysis, which determines the interest of the potential consumers and tourists with analysis of the information on how the region and the wines position themselves in the global market; the second provides an analysis of the current situation in the winery and their positioning in the market; the third describes the procedures for data collection, and lastly, the fourth part explains how the collected data was analysed and what it was used for.

2.1 External Analysis

2.1.1 Overview of the Languedoc Wine Region

The past for Languedoc is both a source of pride and an inferiority complex. It is considered the oldest centre of winemaking in France, confirmed by the discovery of an ancient wine press, recently found by archaeologists in the city of Lattes, south of Montpellier, which dates back to 425 BC, and with one of the oldest vineyards planted in the country.

In the Middle Ages, Languedoc wines enjoyed well-deserved popularity. However, they were rarely exported outside Occitania, a historical region covering the entire French south. Only in the 17th century, after the Canal du Midi construction, which helped connect the Mediterranean Sea with the Atlantic Ocean, local wines came to the attention of foreign wine merchants. At the end of the 19th century, the railway eventually connected the south and north of France, allowing the winemakers of Languedoc to supply their wines to restaurants in Paris for a wider audience.

However, phylloxera did not bypass the region. Jules Émile Planchon was a local biologist who was credited with solving the problem by grafting a European vine onto an American rootstock. After replanting the vines, local peasants sought to compensate for the financial losses incurred during the epidemic as quickly as possible. They cared little about the quality of wine and relied on quantity. The yield in those years reached an astronomical 200 hectoliters per hectare. Productive varieties such as Carignan and Cinsault came into vogue, but with such a load, they produced thoroughly mediocre, watery wines. A tradition has developed to "improve" them with powerful, concentrated Algerian wines imported into France at low prices.

Now we can only guess what wine was like in the south of France at that time. However, the consumer knows for sure about the dubious reputation of Languedoc in the 20th century thanks to numerous articles which appeared in wine-related magazines. The region produced megatons of cheap and mass-produced wines - "factory-made," as wine critics called them. At the same time, until the early 1980s, the region itself accounted for no less than 10% of the world's wine volume. Up to 200 hectoliters were collected from one hectare. It is not surprising that even Algerian wines, rough but full-bodied, the French themselves eventually began to like more.

The offensive of Chile, Australia and Argentina began to repulse the region with their own weapons" - varietal wines with the broad geographical name IGP Pays d'Oc. As winemakers from the region say, in the 1990s, the Languedoc experienced a rise, reborn thanks to blended wines, understandable by name and affordable in price. The success of IGP Pays d'Oc across France has opened up new branding opportunities. Languedoc began to be called "French California" or "French New World", as the comparison implies not only a generous sun and a generally very favourable climate but also a

relative freedom from the rules that usually strictly regulate the life of a winemaker in France. Not weighed down by the burden of former greatness and not constrained by the rigid boundaries of appellations, Languedoc winemakers began to work more often with non-traditional grape varieties, imbued with new technical ideas.

Today, Languedoc is an attractive French wine region thanks to its modernisation with a wide choice of wine styles at reasonable costs. Local wines are divided into two large types: wines of appellations protected by origin (AOC/AOP) which account for about 14% of the region's production, and local wines (IGP/Vin de Pays), with 60% of the region's production.

To date, 36 appellations have been registered, of which twenty-nine can produce red, white and rosé wines, three are for sparkling (with the oldest in the world Blanquette de Limoux), and four are for sweet fortified wines. AOC category wines can only be produced from a particular area and permitted grape varieties. Only local, Mediterranean varieties are allowed, and the wine must be an assemblage of at least two of them: Grenache, Syrah, Mourvèdre, Cinsault and Carignan are allowed for red and rosé wines; Bourboulenc, Grenache Blanc, Roussanne, Marsanne, Vermentino, Clairette Blanche and Picpoul - for whites. The IGP allows thirty-three grape varieties, among which the leaders in plantings are Merlot, Chardonnay, Cabernet Sauvignon, Grenache and Sauvignon Blanc.

Wine tourism in the Languedoc has been undeveloped until recent years. However, things are gradually changing, and more producers are interested in developing their activities to attract tourists to their domains and introduce the best wines available in the region. Due to the fact that wine tourism is at an early stage here, there are still a number of difficulties that can complicate and not interest tourists in visiting local wineries, among which we can note visiting hours only on weekdays, hours of the lunch between noon and 2 p.m, a language barrier, the lack of the ability to book activities online, and so on.

In addition, currently, only large wineries are not limited to tasting and visiting vineyards but aim to create unique tourist activities and develop complex offers with the possibility of spending more days in the area through the construction of hotels and restaurants, as well as collaboration with local producers in order to combine wines with gastronomic experiences.

2.1.2 Overview of AOC Malèpere

Malepère has become AOC since 2007. It is the westernmost appellation of Languedoc. The Malepère extends over a geographical area of 39 municipalities and is developed by 18 cellars and estates (16 private cellars and two cooperatives).

The red and rosé wines of the AOC Malepère differ from other Languedoc wines, particularly by the predominance of blends of Atlantic grape varieties such as Merlot or Cabernet franc and Southwest

grape varieties such as Malbec. The meeting between the Atlantic and the Mediterranean climate at this place is partly responsible for this diversity. The wines produced on this terroir are original and specific to the region, combining freshness and elegance with good ageing potential.

As one of the ways to promote both the region, the wineries and the tourism offerings, the Appellation Winery Association holds an annual initiative called Thursdays in Malepere (Les Jeudis en Malepère) in July and August, when local domains open their doors to all visitors, hosting tours and tastings in conjunction with local gastronomic offers.

At the same time, the wines of this region are not yet well known outside of France and are not widely represented in foreign markets, which still limits the tourist flow and opportunities in the area.

2.2 Internal Analysis

2.2.1 Benchmarking Analysis

As part of the analysis of the company and the potential of the future wine tourism offer, benchmarking was also carried out as a study of the experience of competitors or the most successful companies in the market, allowing us to propose the most effective actions in the future.

Since the main idea of this thesis is to develop a virtual tour of the winery, which will be distributed through a QR code applied to the wine label, examples of companies that also interacted with the consumer in one way or another were studied.

The limitations of this analysis were that the scope of virtual wine tour offerings is not yet sufficiently developed, and there is a minimum number of offerings on the market. Therefore, companies offering innovative solutions to promote wines using different realities were considered.

Interactive wine label and its impact on the market

The Australian wine brand 19 Crimes, from the wine company Treasury Wine Estates, launched 2018 their Augmented reality (AR) wine labels in which the person on the label came to life and told a true story behind the labels, basically about Australia's founding as a criminal colony. This marketing move positively impacted the company's performance and brought high popularity to the brand (Schwab, 2022).

At the same time, one cannot speak of a great possibility of spreading this kind of technology on the wine market, including for the possible "revival" of a vineyard or winery on the label, since this will require significant financial investments. Mainly to create special mobile applications that can read this information. It also limits the ease of use for the consumer as more time is spent getting ready to use the activity.

The virtual wine-tasting experience

Charles Krug, one of the oldest Napa Valley, during the COVID-19 lockdown, started to offer multiple options for customers allowed to drink their wines at home under the control of sommeliers without needing to meet in person and go somewhere. The winery has created a selection of different virtual wine tastings with different prices that offer a deep dive into its family's history, wines and production story and food pairing options.

One of the most significant benefits of this type of activity is that a person involved in the process does not need to travel somewhere after, especially driving a car. Also, everyone can participate in the session and bring more audience to the brand after all.

The use of VR technologies as part of the promotion of the wine region in the foreign market

Researchers have long discussed the potential development and implementation of virtual reality in tourism as it has a lot of positive aspects, mainly as it provides accessible tourism. In addition, this is one of the innovative technologies that may interest new consumer groups, especially the younger generation. Therefore, the Australian region Riverland project was based on this tool as part of a marketing campaign to promote the region in the country's critical American and Chinese markets.

Based on the research and focus groups, a tourism product was created that consists of the presentation of the region with the help of a video sequence with music and the speaker's stories describing the features of the terroir, and in the future, the consumer can choose one of three categories that will allow you to get the knowledge of the region better: wine and food, wildlife or various accommodation options in the region.

It is available as an application for digital devices or during wine-thematic exhibitions in a physical space with VR goggles. This activity shows the possibility of implementing a virtual experience as a part of tourism offers of the winery or the region to gain more popularity among customers and tourists, especially in case of events that might prevent international travel (Qesja, B., & Bastian, S. E., 2023).

2.2.2 Diagnosis of the situation: SWOT ANALYSIS

SWOT analysis will help systematise information about activities and, based on the results, choose where to go next, how to use your strengths and the opportunities presented, and address threats and weaknesses. It is an essential tool in developing products and activities, the marketing strategy of the company and the determination of further development actions, including wine tourism.

The current analysis was done according to personal experiences and observations during the internship period and consulted with local managers (Table 1).

Table 1. SWOT Analysis of the Domaine La Louvière

Strengths	Weaknesses
- High-quality and organic wines at a reasonable price in different styles - Unique branding differentiates bottles from others on the shelves. - Engaging storytelling linked with the symbol of the place and the winery - wolves. - Picturesque views of the Pyrenees mountain range and unique landscapes. - Sustainable approach with different eco-activities (e.g. worm farm) and biodiversity - Well-developed relationships with hosting businesses in the region. - Precise information about products in two languages. - Good marketing brand kit with original materials (Drink coasters) - Proximity to the city of Carcassone, which attracts many tourists because of its castle and Limoux as a centre of Cremant production. - Experiences (tastings, events, etc.) can be accessible to legal drinking age groups, even disabled people. - Creative labels with a little sexual context attract the attention of young people and are remembered for their difference from others.	- Social media mainly in French. - Minimal public transport in the region, and travelling without a personal car is impossible. - There is no specialised staff for wine tourism. - Not developed website with a lack of information and updates. - Seasonality. - Nearby wine regions with big names create colossal competition to attract tourists' attention. - Old fame of Languedoc wines as a mass market might make attracting people to the region harder. - Do not see themselves as a part of the tourism value chain. - Poor positioning on the wine route, mainly because of not well-developed work of AOC Malepère with winemakers from the region.
Opportunities	Threats
- Active support of international and domestic tourism by all sorts of entities to bring more tourists and develop activities around the winery. - Promotion and cooperation between winemakers and farmers in the region to bring popularity to the wine route of Malèpere. - Ryanair Airport's proximity brings many international tourists looking for sustainable and calm experiences. - Diversifying existing tourism products and creating new online and offline offers, as the interest in experienced and cultural tourism is growing.	- Intense competition with big names in the region like Gerard Bertrand, Domaine Gayda or other wineries which are easier to access. - Summer tourism in Coastal zones - Rural Competition. - Political and economic instability globally. - Climate change. - Location at unknown and not a well-promoted region. - Not a stable financial situation in the AOC Malepère consortium and insufficient activity aimed at promoting the region and the winery included

2.3 Quantitative Research

The literature review was the first part of the research, from which the questions to respondents to be answered were developed.

In order to obtain the necessary data for the thesis and to gain a better understanding of the preferences and expectations of potential virtual wine tourists, a digital survey was designed via Google Form platforms. To ensure that the survey was understandable, it was crucial to go through a testing phase where four people revised it in person, including one wine expert.

The survey was divided into five parts and consisted of 22 questions, which were mandatory to answer and with closed answers (Annex 1).

- The first part was necessary to filter out information irrelevant to the study, namely, not to use further data from people who are not active wine consumers and can not be presented as potential online wine tourists. Therefore, with a negative answer about the recent purchase of wine, the survey ended for the respondent.
- The second part of the survey was generally aimed at studying consumer behaviour when buying wine and the influence of wine labels on decision-making since the actions proposed in the future to create a virtual wine tourism offer will be based, among other things, on the use and modification of the wine label as one of the mass media promotion of the offer. In particular, consumer perception and interest in the information provided by winemakers were studied.
- The third part of the questions aimed at studying the potential interest in the presence of a QR code, the expectations of wine consumers, and the motivations that encourage them to continue interacting with this tool.
- The fourth category of questions examined the attitude towards the virtual wine tourism offer, expectations and potential offers that can be presented to the public, as well as assessing further opportunities in additional promotion of this activity and the impact on increasing sales.
- The last part collected the socio-demographic wine consumption profile to determine the target group and possible marketing strategy to develop further.

After the necessary changes, the online survey was published for three weeks in three languages (English, French and Russian) and promoted on special wine tourism or wine-lovers-related groups and communities in social media (LinkedIn, Facebook and Instagram) in order to get more answers. It was also helpful to get a broader vision with different cultural and age approaches to the research.

2.4 Creation of the Guideline for Proposal Implementation

The survey results conducted as quantitative research and analysis of both internal and external situations revealed the characteristics of the virtual wine tourism offer that potential customers consider most important for their future use of activity offered by the winery. These characteristics were further moved to the guideline with a description of the best practices to be implemented to propose an innovative and new way of promoting wineries in the global market with the aim of getting new consumers and tourists in the region. The guideline draft was reviewed by the company managers, wine tourism and marketing experts and updated based on relevant comments.

3. RESULTS AND DISCUSSION

This chapter presents the main results of the research conducted to create a wine tourism product proposal for the winery. The first section describes the results of the survey regarding respondents' perceptions of QR codes on wine labels and virtual wine tourism offers. The full results of the survey are available in Annex 2.

The second part introduces a description of the offer and a strategy for the implementation to the market. The last section reflects on possible challenges wineries might face and limitations for future research.

3.1 Results of the Survey

General characteristics

A total of 157 valid answers were collected, including 16 respondents that were not chosen as a part of the research target: non-wine consumers. At the same time, such a part of consumers should not be excluded from potential customers in the future since their interaction with the winery and wine can occur when they are in company with wine consumers and a bottle of wine is in close proximity.

Therefore the final sample was composed of 141 persons with characteristics presented in Table 2, mainly presented by 66% female and 34%% male. Speaking about the age groups, the most actively participating in the survey are 25-34 and 45-64 years old.

Table 2. Sample characteristics

Demographic Variables	Absolut Frequency	Relative Frequency
Gender		
Female	93	66%
Male	48	34%
Age		
18-24	10	7,1%
25-34	55	39%
35-44	28	19,8%
45-64	41	29,1%
65 and older	7	5%

As previously stated, the survey was conducted online, utilising social networks for a broad reach and participation from individuals across 28 countries. The majority of respondents hailed from Russia and France, providing a diverse international perspective on the effectiveness of QR codes in winery promotions. Information on participating countries is indicated in Figure 1.

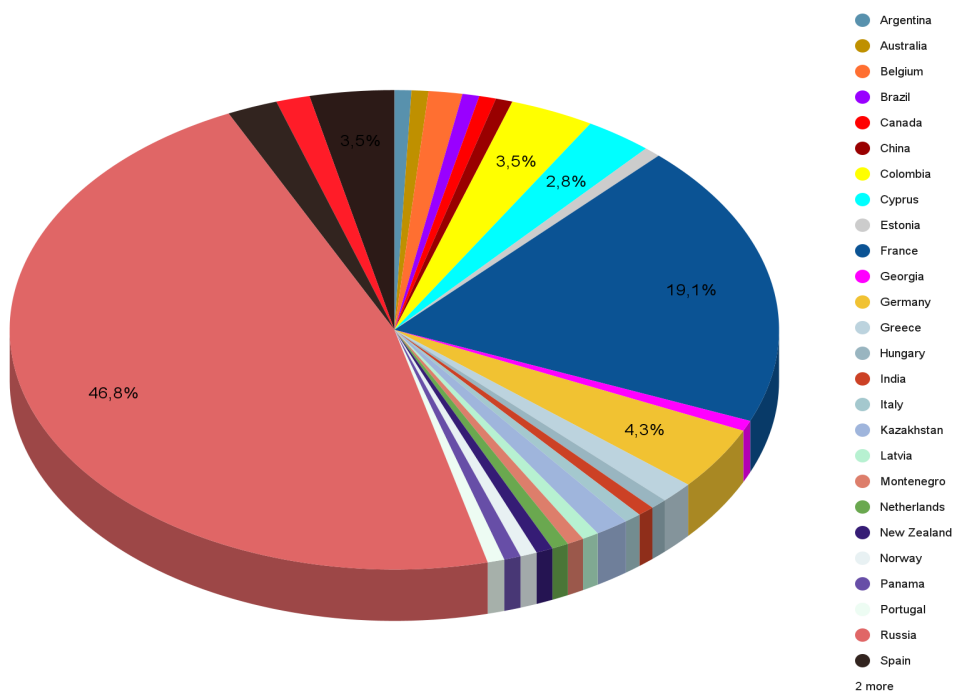


Figure 1. Countries of respondents

Regarding wine consumption, it is notable that the frequency was relatively high: 24,8% of respondents answered that they drink wine once a week, and 22% chose more than once a week. At the same time, the wine purchase had a different response where the most significant part of respondents buying wines several times a year (28,4%) or 2-3 times a month (27%) (Annex 3), which we can interpret as wine is also consumed in different places and on different occasions.

In summary, the most common respondent of the survey is a woman, aged between 25-34 years old, which consumes wine during the week but only makes her purchases occasionally.

Perceptions of wine labels and information

The next set of questions is related to consumer perceptions of the label, specifically the bottle's back label. When asked whether consumers pay attention to it when choosing wine, almost 81% answered yes, and 66% answered that they also study the back label while drinking a bottle.

Also, it was proposed to choose the information that attracts the most attention from the consumer. Popular responses include information about the region or appellation of origin of the wine (109 respondents), grape composition (92 respondents), taste and aroma characteristics of the wine (83 respondents), and information about the winery with a history or winemaker explanation (62 respondents).

At the same time, the least popular option was information about the organic certificate (1 answer), contact information about the winery, i.e. website, address and phone numbers (29 respondents) and information such as serving temperature and food pairing suggestions (51 respondents).

The recent COVID-19 epidemic and all the isolation measures taken, with the use of covid passports, have taken their toll. The majority are already familiar with such a concept as a QR code, which is also confirmed by the survey, where 93,6% of respondents answered that they know what it is and 88,7% can read information encrypted in this tool.

The next part of the interest in the survey was what could motivate a consumer to scan a given QR code on a wine back label. Most respondents answered that it is only a personal desire to learn something more about the winery itself (99 answers). Also, motivating or explanatory inscriptions can encourage a person to use this code (57 answers) to retrieve the information.

In addition, the final question in this section related to what information the consumer expects from scanning a given code. And so far, the majority of consumers have responded that it is either information/description of the winery or a story from a winemaker about wine (85 responses), possibly leading to the main website (66 responses) or technical information about the wine (74) with possible recommendations for pairing with food (67 answers).

The survey itself was designed so that the questions were displayed to the respondents gradually, and it was impossible to see the entire list in advance. Therefore, thus it was interesting to get the answer: "Something that will allow you to feel in this region and at this winery to enjoy wine in full" before moving on to those questions that were aimed at interest in a virtual winery tour.

Consumers' wine knowledge typology and Perceptions of virtual wine tourism

Further survey results are interpreted depending on the category of knowledge about wine, to which the respondents identify themselves and their attitude towards virtual tourist offers from the winery. However, before moving on to this information, it is worth noting that 98 people (69.5%) had previously visited wineries, and 73 of them took part in wine tourism activities.

Each participant was asked to relate himself to one or another group of wine consumers, choosing the statement closest to himself based on six types of wine consumers (Bauerhaus, 2019). Thus, the following data is displayed in Figure 2.

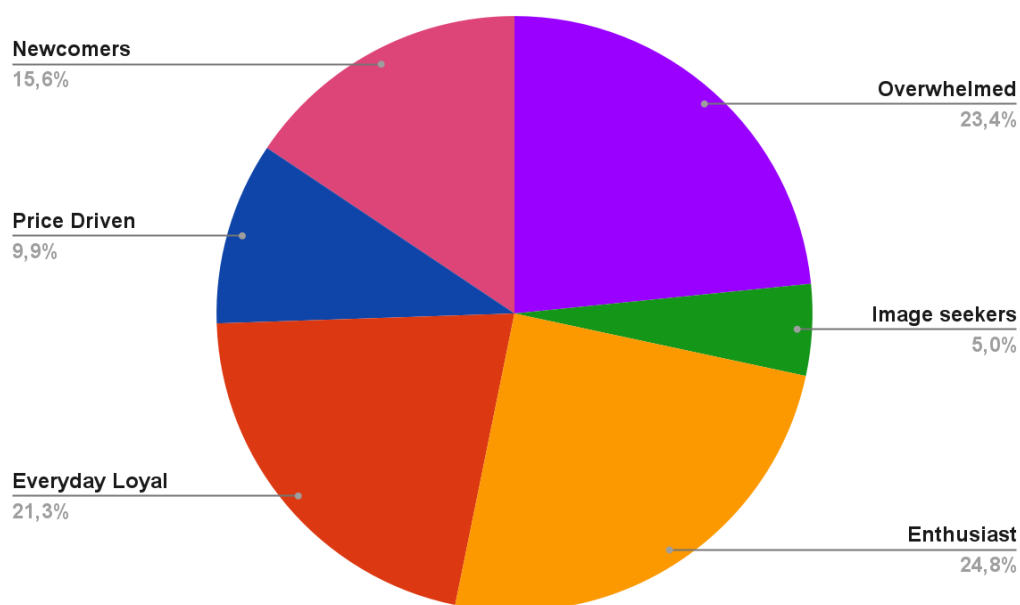


Figure 2. Wine knowledge typology of respondents

- **Enthusiasts** described themselves as knowledgeable about wine and looking for new emotions and activities. 54.2% of respondents in this group answered that they were ready to take part in an online tour of the winery offered by a QR code. At the same time, tasting with a sommelier or winemaker was chosen as the most exciting activity, explaining the characteristics of the wine (25 respondents). Next in popularity was a virtual winery tour with a story about the technological processes of winemaking (21 answers). 60% of respondents in this group will try to visit the winery after their virtual experience in real life.

- **Overwhelmed** were people who think that they usually do not know what to buy and are more likely to be open for advice. 48,5% are more likely to participate in the virtual tour. In comparison, only 6% said that they would not do it. The group's most exciting activity was the tasting session (23 answers). At the same time, 16 respondents are also interested in doing a quest study to learn better about the region or the grapes; the same number are willing to visit the winery.
- **Everyday Loyal** prefers entertainment at home and likes to find a brand to which they will be loyal, preferably from established wineries. Only 43% are willing to scan the QR code and participate in the virtual experience. The tasting session is also the most popular expectation (21 answers) from the experiences provided by the winery. Half of the respondents of this group can consider visiting the winery in real life after the virtual experience.
- **Newcomers** are the most interesting group of wine consumers as they do not know much but are interested in learning more. 59% are willing to have a virtual experience. Seventeen respondents want a virtual visit to the vineyards and region, and fourteen want a quest study. The results of willingness to visit after are 68% chose yes, and only 4% said no.
- **Price Driven** is the type of customers who mainly choose a wine because of promotions or special offers. 57% of them will scan the QR code, mainly wanting a virtual visit to the vineyards (9 respondents). However, 85,7% of respondents choose that they might visit the winery after a great virtual experience.
- **Image seekers** are the ones who like to discover new wines or have them as a symbol of their status. 71% will visit the winery after the experience, and 57% will scan the QR code to receive a virtual tasting session (5 respondents) or winery visit with a technology description (5 respondents). A distinctive feature of this group was that no one of the respondents was interested in an interactive learning quest.

Further promotion of experience

The survey also studied possible recommendations to their friends, the so-called word-to-mouth type of promotion, based on the results of participation in the virtual activity, where 37,6% of participants answered that they would definitely recommend to their friends, 55,3% - probably yes.

A question was also added about the possible re-purchase of this brand of wine, and here we can also note positive results: 39% will definitely buy again, and 49,6% probably yes.

The conducted survey of customer behaviour and perception regarding QR codes and virtual wine tourism experiences, its analysis allows to give relevant proposals and recommendations for the winery, which creates its own online activity for the consumer. As well as advice on the design of the

QR code applied to the label to further promote this offer, which is presented in the next part of the project.

3.2 Recommendations and Project Implementation

3.2.1 General Aspects

The primary purpose of creating a connected wine label and virtual activity is to lure consumers to get acquainted with the winery and its products and increase their knowledge about wine and grapes. The activities will be triggered by the consumer, which can lead to a more relevant and high-quality interaction with the company.

The consumer takes a simulated tour of the winery and surrounding vineyards in a specially designed environment. In this kind of simulation, the consumer can experience all their senses through a multi-sensorial offer. At the same time, they will receive information about the company and the product.

3.2.2 Model of the Activity

Initially, the QR code is placed on the back of the wine label, which, as the survey showed, should be issued along with motivating inscriptions explaining what the consumer expects as a result of scanning, for example, "Scan me to visit the winery" or "Feel and understand the wine better with me."

This QR code leads to a specially created experience page (not the official site of the winery and not pages on social networks), where it is proposed to choose a language more suitable for the user. Currently, based on the leading countries of export of products, in Domaine La Louvière, the relevant languages are French and English; in the future, it is recommended to adapt to German. After choosing the language, there is a transition to the main page of the tourist offer.

This tourist activity is intended for quiet exploration while staying at home, in leisure time or at dinner/lunch with wine. To engage and provide a relevant experience, a range of videos and textual information must be prepared and compiled with the critical points in mind and the idea of creating exciting storytelling.

Nevertheless, it is also possible that a person will scan this QR code in a store. In this case, it can influence the decision-making process, engage the consumer, and lead to purchasing. Due to limited time, this activity will also include graphic elements (infographics, etc.) that allow you to provide information even if you quickly scroll through the virtual pages.

As part of the activity, after scanning with the help of videos, the consumer virtually visits the winery, cellars and vineyards, and learns about its history with the help of specially prepared storytelling, which allows them to get acquainted with the production (from grape harvest to pressing), learn more about the region and at the end taste the wine with the help of videos where the winemaker himself is present, talking about his wine.

For a successful application, all five senses must be affected to maximise their interaction (Martins et al., 2017b):

- **Vision:** The consumer can see the surroundings of the vineyards and the mountains of AOC Malepère with the help of a specially prepared video with the application, including shooting with a drone and visiting the winery to see the process of wine production. In addition, this information should be interspersed with text inserts and infographics explaining the characteristics of the region, terroir and grapes. It will satisfy the need of the majority of wine consumers to obtain relevant information and gain new knowledge.
- **Hearing:** To provide greater integration and enhance the sense of presence, videos of the virtual tour are made with an audio track based on the sounds of the surrounding winery: birdsong, the raging mistral wind, the hum of birds, as well as the calm narration of the winemaker and tourism manager about what the person sees at the moment and with the story as part of a virtual tour.
- **Smell:** To influence this sense organ, in the process of activity, the narrator explains and gives the characteristics of certain smells that surround the territory, and also, as part of the tasting, they offer the participant to feel the aromatic component of the wine in the glass.
- **Taste:** As part of the tasting, the participants taste the wine under a specially recorded video telling about it and other wines of this winery. In the future, there is the possibility of finalising the project when a separate QR code with a separate integrated video will be created for each wine, telling about only one specifically purchased copy (which may slightly narrow the possibility of making a repeat purchase).
- **Touch:** Again, as part of the activity, the narrator describes certain sensations that a tourist may experience if he is present in reality at the winery (for example, the roughness of a grape leaf or the wooden surfaces of barrels), which will allow excitation of neural connections in the brain and with the help of memories bring that experience to the consumer.

At the end of this virtual travel experience, the consumer is taken to the company's main website, where it is possible to order wine, schedule an actual visit, subscribe to the winery's social pages, or find out the latest news.

For a better exposition of the content of the virtual tourism experience, Table 3 provides the structure, type of content and the key points which are going to be addressed, and the time needed to complete the activity.

Table 3. Virtual wine experience specification

Virtual Experience	Type of the content	Key Points to be focused on	Senses	Time
Domaine history	Documentary video, photos	The story behind the label The winemaking traditions The Grohe family story	Vision Hearing	3 min
Malepère wine region	Documentary video, photos, infographics and text information, quest in the end to make it more interactive	Definition of the region Vineyards Grape varieties Wine styles	Vision Hearing Touch Smell	6 min of video + 3 minutes for texts
Wine making process	Infographics and photos,	Vinification processes and ageing	Vision	10 min
Wine tasting	Video interview with a sommelier and winemaker	Aroma and taste profile of the wine Food pairing Ageing advice	Taste Smell Vision Hearing Touch	10 min

3.2.3 Promotion

As mentioned earlier; initially, it is necessary to highlight this QR code on the label using hint headers. In addition, technology's current capabilities allow design in the brand's corporate colours, choosing the shape and size of the code components, and embedding the logo.

It was recommended to create such a tool in the form of a dynamic code, which means the constancy of the code itself, but the encrypted information can be changed at any time without the need to replace the labels. In addition, this kind of tool allows collecting statistics on where this code was scanned (city, country), with which device (mobile phone or tablet), how much time was spent on studying the content, whether there was a further conversion of this experience into a sale of one or the other proposal or not.

Since Domaine La Louvière has a presence on social media, many video posts are planned to explain how to take advantage of this experience and what the consumer can expect. Among other things, booklet layouts were created for promotion at points of sale (vineyards, bars and exhibition spaces).

The proposal is being finalised, and the launch is planned for 2024 when all wine labels will be updated per the new EU regulation.

3.2.4 Relevance of the Project

Starting from November 2023, following the new European Union Regulation 2021/2117, all wines produced and sold in the EU must have complete information about ingredients, nutrition and allergens. This information is a significant amount that can completely spoil the design of labels. Thus, the QR code is one of the solutions for providing consumers with access to this information. At the same time, one of the requirements of this regulation states that such a code should not lead to any other information intended to increase sales or collect data. The possibility of introducing a similar requirement for wines sold on the market is also being discussed in the United States of America.

The relevance of this work lies in the fact that European wineries will have to change the design of their labels in any case so as not to run into fines and sales bans from the government. At the same time, consumer awareness of this kind of opportunity to get more information, like a QR code, will only increase. Proper design and switching the focus of the consumer to a QR code that carries information of an entertaining nature, such as a virtual wine tour, can increase brand awareness and loyalty and lead to increased sales and visits to the winery.

Most brands, including wines and other strong drinks (for example, Kilchoman whiskey), are already trying to integrate virtual tours on their product labels using QR codes or augmented reality through mobile applications. The sooner companies take advantage of this opportunity, the more interest they can gather around innovative proposals.

3.3 Challenges and Limitations

During the study, difficulties arose with certain limitations. First of all, at the moment, there are not so many companies using QR code technologies to promote their products. Respectively, the necessary sources of information, such as books, articles or reports, are available in small quantities.

Another limitation was that virtual wine tourism activities are a relatively new direction, and not all winemakers and tourists still understand what it is and why they need it. It takes time to adapt and accept new realities and market needs.

It would be valuable and interesting for future research to use different methodologies that include qualitative data, such as in-depth interviews or focus groups with consumers from different countries, showing consumers different types of virtual wine tourism activities or wine-label designs with QR codes to allow researchers to get deeper insights into the subject and develop better projects.

4. CONCLUSION

France is one of the leading destinations for wine lovers and connoisseurs to undertake wine tourism. In addition, French wines are annually included in the Top 3 best-selling wines in the world. However, this study shows that the Languedoc region is not a popular destination or favourite region. This region is still gaining consumers and is trying to get loyal and committed customers by offering engaging high-quality wines.

This work also revealed the great potential of Languedoc for the development of tourism. At the same time, as a distinctive feature, this region is where winemakers are fearless in experiments and offer non-standard solutions (such as the recent release of wine by local winemakers with production technology written by artificial intelligence).

In this paper, a project and recommendations were presented for creating a virtual wine tourism activity that combines a tour and tasting under the guidance of a sommelier, which will be placed using innovative QR code technology on the back of a wine bottle label. The goal was to develop an innovative solution that allows wine producers to attract more customers, offer an unconventional experience and promote their products, wine tourism activities and the region in the digital age at the international level. During the study, an analysis of existing approaches to wine tourism was carried out, as well as the main trends and tools used in promoting the products of the wine industry. Based on a survey conducted for this research and the data obtained, the concept of a virtual wine tourism product was developed that does not require significant financial investments for wineries. In contrast, wine enthusiasts get a unique opportunity to get to know the diversity of wine regions right from their homes, being in their comfort zone.

The main goal of the work was to create an innovative wine tourism product that would be relevant not only for Domaine La Louviere but also for other wineries, primarily for small companies looking for non-standard ways to promote their products. With a small financial investment in the production of videos and photos, it is possible to create an exciting activity for tourists and attract the attention of potential importers looking for unique suppliers.

The main proposals were substantiated by the results of a study on consumer behaviour and attitudes towards the label and the QR code that will lead to the proposed proposal. The activities of interest were taken into account, as well as the main points that could benefit the business.

The results of the study as well as the proposed project, are shown in Table 4, summarizing all the main points and objectives of the project.

Table 4. Summary of the proposal

Wine knowledge typology of respondents	Objectives to be reached	Virtual wine tourism activity proposal	Type of the content	Key Points to be focused on
- Price Driven	To stand out the winery from the other offers on the market and provide unique storytelling.	Domaine history	Documentary video, photos	The story behind the label The winemaking traditions The Grohe family story
- Overwhelmed - Newcomers	Provide more information about to the region itself, typical grapes and wine style for people who think that they usually do not know what to buy and are more likely to be open for advice	Malepère wine region	Documentary video, photos, infographics and text information, quest in the end to make it more interactive	Definition of the region Vineyards Grape varieties Wine styles
- Enthusiasts	Provide deeper understanding of wine making process with some activities in the end to make it more fun.	Wine making process	Infographics and photos, quest in the end to make it more interactive	Vinification processes and ageing
- Image-seekers - Everyday Loyal	Explanation of the wine, food-pairing, ageing potential	Virtual wine tasting	Video interview with a sommelier and winemaker	Aroma and taste profile of the wine Food pairing Ageing advice

However, to better develop the virtual wine experience, profound research about the consumer's interests and needs with the implementation of different cultural focus groups is necessary.

Domaine La Louvière is a winery with a keen interest in marketing, out-of-the-box promotional solutions, a sustainable approach to winemaking and emerging tourism potential. This project may soon become extremely popular and widely used with proper management and marketing. At the same time, it can be helpful not only in France but also in other wine regions that want to attract tourists and win the attention of buyers on a global level.

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ANNEXES

Annex 1. Questionnaire (English version)



The use of QR codes with e-wine tourism activity: virtual wine tour

The following survey is for research purposes on behalf of the Wintour Erasmus Mundus Wine Tourism Innovation master's degree.

The study will help to find more consumer interest in scanning a QR code on a wine label and further participation in a virtual experience of the winery, as well as the effectiveness of this tool in promoting both the product and the tourist activities of the company and the region.

The aim of the study is to develop a tool for the wineries with practices based on the results of the research.

The entire survey will take 10 to 15 minutes of your time and consists of 22 questions. Each of the questions is required to be answered, and your answers are essential to this study.

If you have any questions or suggestions during the survey, please write to me on Telegram - [@marina_yam](https://www.telegram.com).

The entire survey is anonymous. Thanks in advance for participating!

*** Indicates required question**

1) Have you purchased a bottle of wine in the last 8 months?* Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ No, but received it as a gift
- ☐ Other:

2) Do you pay attention to the back label of a bottle when choosing a wine?* Mark only one oval.

- ☐ Yes
- ☐ No

3) Do you study the back label while drinking wine?* Mark only one oval.

- ☐ Yes
- ☐ No

4) What kind of information can attract your attention the most? (Multiple answers possible)*

Tick all that apply.

- ☐ Grape varietal composition
- ☐ Information about the appellation/region of origin of the wine
- ☐ Technical information (sugar level, alcohol percentage)
- ☐ Serving information (serving temperature, food combinations)
- ☐ Information about the winery (history, biography of the winemaker)
- ☐ Taste and aroma characteristics of wine
- ☐ Contact information about the winery (website, social networks, address)
- ☐ Other:

5) Rate the following statements in order of importance to you, where 1 is not important at all, and 5 is very important. * Mark only one oval per row.

	1	2	3	4	5
Creative label design	☐	☐	☐	☐	☐
Appellation / region of production	☐	☐	☐	☐	☐
Information about the winery	☐	☐	☐	☐	☐
Technical information	☐	☐	☐	☐	☐
Taste and aroma characteristics	☐	☐	☐	☐	☐
Winery contact information	☐	☐	☐	☐	☐
Grape varietal composition	☐	☐	☐	☐	☐
Serving Information	☐	☐	☐	☐	☐

6) Are you familiar with such a tool for obtaining quick information as a QR code?* Mark only one oval.

- ☐ Yes
- ☐ No

7) Can you read information encrypted using a QR code?* Mark only one oval.

- ☐ Yes
- ☐ No

8) Imagine a situation where you found a QR code on the back label of a wine bottle. What will motivate you to scan it? (Multiple answers possible)* Tick all that apply.

- ☐ Bright design (colour, size) of the QR code itself
- ☐ Motivating inscriptions (Scan me, etc.)

- ☐ Personal desire to learn more about wine and/or winery
- ☐ Nothing can interest me
- ☐ Other:

9) What information do you expect to get by scanning this QR code? (Multiple answers possible)* Tick all that apply.

- ☐ Wine Technical Information
- ☐ Serving information (food pairing, serving temperature)
- ☐ Information about the winery
- ☐ The story from the winemaker about the production of this wine
- ☐ Web site of the winery
- ☐ Links to social networks of the winery
- ☐ I don't expect anything
- ☐ Other:

10) The QR code you found offers you a free virtual tour of the winery. How likely are you to participate? (1 - I am not at all interested in this, 5 - I will immediately study all the information presented) * Mark only one option.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

11) What activities would you be interested in as a virtual tour? (Multiple answers possible)*
Tick all that apply.

- ☐ Video walk through the vineyards, winery and cellars, with a story about the characteristics of the region and grapes
- ☐ Tasting with a winemaker or sommelier with a detailed story about the wine and possible pairing with food
- ☐ Virtual visit to the winery with a story about the applied wine production technologies
- ☐ Interactive quest-study of the region, wine and history of the winery
- ☐ Other:

12) Would you be more likely to visit a winery/wine region or take part in a wine-related event after a virtual tour?* Mark only one oval.

- ☐ Yes, definitely
- ☐ Yes, somewhat

- ☐ No, not really
- ☐ No, definitely not

13) Would you be more likely to repurchase this brand of wine?* Mark only one oval.

- ☐ Yes, definitely
- ☐ Yes, somewhat
- ☐ No, not really
- ☐ No, definitely not

14) Would you recommend this wine to your friends/acquaintances/family?* Mark only one oval.

- ☐ Yes, definitely
- ☐ Yes, somewhat
- ☐ No, not really
- ☐ No, definitely not

15) Have you ever visited wineries in real life?* Mark only one oval.

- ☐ Yes
- ☐ No

16) If you answered yes to the previous question, did you take part in the tourist activities of the winery you visited? Mark only one oval.

- ☐ Yes
- ☐ No
- ☐ Other:

17) Gender* Mark only one oval.

- ☐ Woman
- ☐ Man
- ☐ Other:

18) Your age* Mark only one oval.

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-64
- ☐ 65 and older

19) How often do you drink wine?* Mark only one oval.

- ☐ More than once a week
- ☐ Once a week
- ☐ 2-3 times a month

- ☐ Once a month
- ☐ Several times a year

20) How often do you buy wine?* Mark only one oval.

- ☐ Mark only one oval.
- ☐ More than once a week
- ☐ Once a week
- ☐ 2-3 times a month
- ☐ Once a month
- ☐ Several times a year
- ☐ Other:

21) Which category of wine consumer do you consider yourself to be?* Mark only one oval.

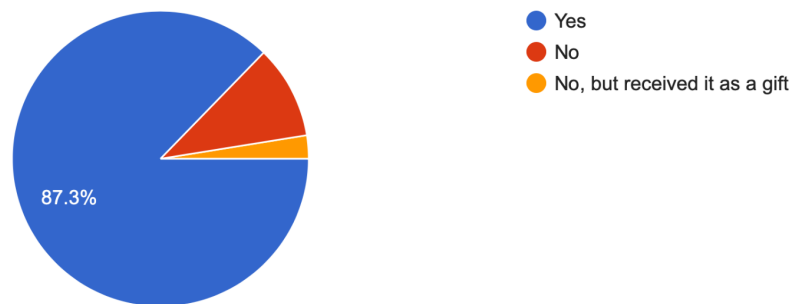
- ☐ I love wine, but I often don't know what to buy / I choose wine based on the design of the wine label / Open for advice
- ☐ I have knowledge about wine / I like to be the first to try this or that wine / Wine is a status symbol for me.
- ☐ I consider myself knowledgeable about wine / I like to explore the wine sections in stores / I like to drink wine with friends
- ☐ I drink wine during the dinner, with family or friends, I'm not interested in more information
- ☐ If I find a brand that I like, I try to stick to it / I love wine from famous wineries / Wine is part of my regular routine
- ☐ I believe that you can buy good wine without spending a lot of money / Nothing beats a glass of homemade wine while dining in a restaurant
- ☐ I don't know much about wine, I just love drinking it / Wine is part of the conversation

22) Country of your residence*

Annex 2. Questionnaire responses

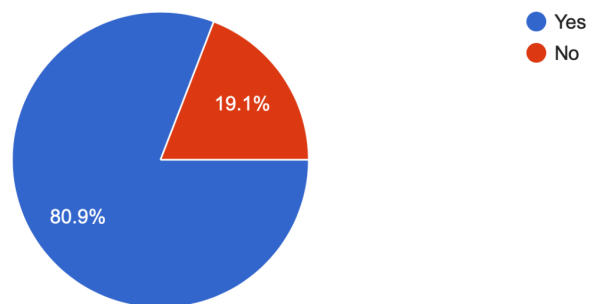
1) Have you purchased a bottle of wine in the last 8 months?

157 responses



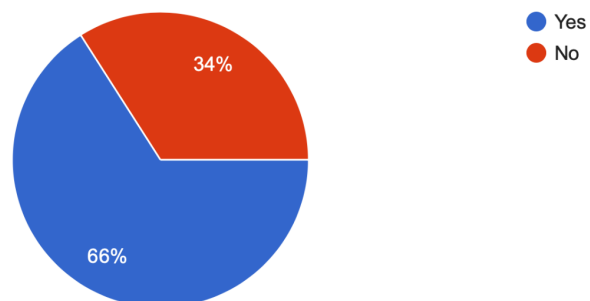
2) Do you pay attention to the back label of a bottle when choosing a wine?

141 responses



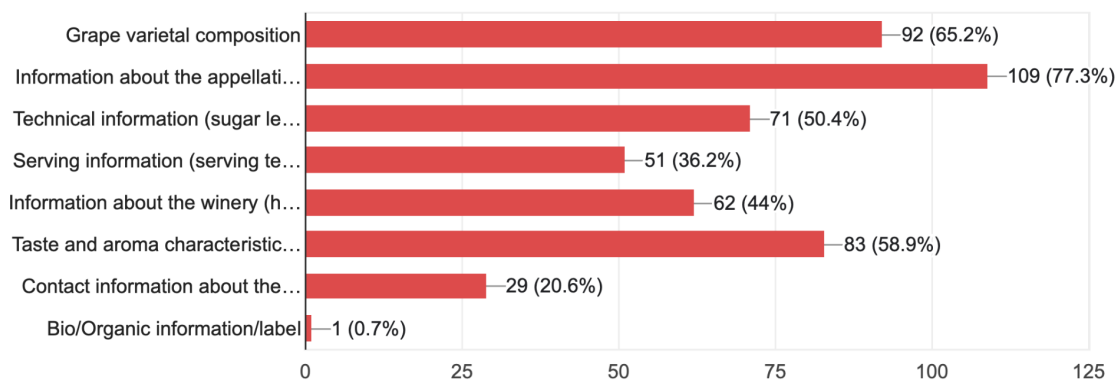
3) Do you study the back-label while drinking wine?

141 responses

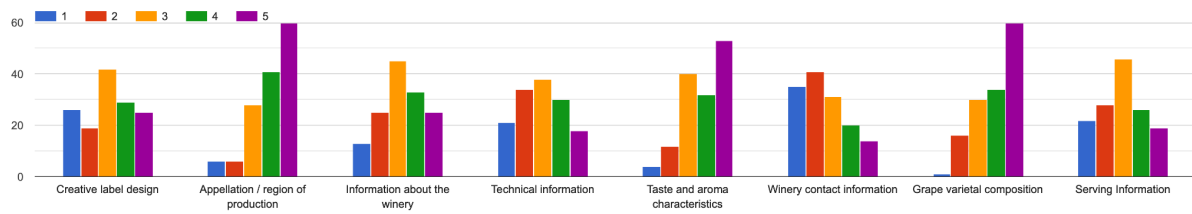


4) What kind of information can attract your attention the most? (Multiple answers possible)

141 responses

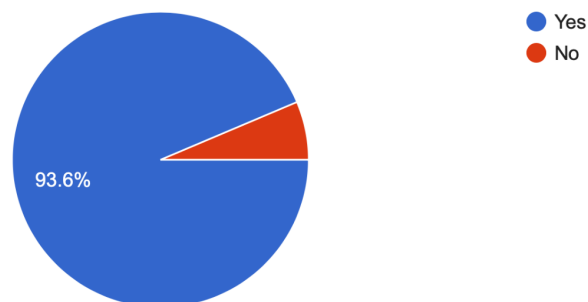


5) Rate the following statements in order of importance to you, where 1 is not important at all, and 5 is very important.



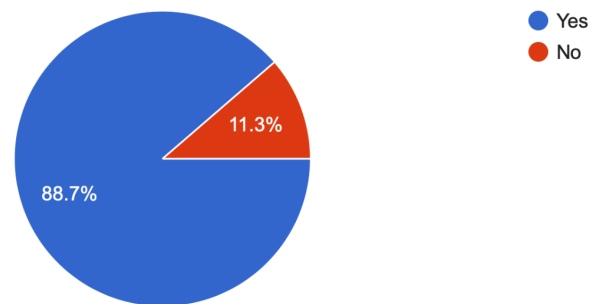
6) Are you familiar with such a tool for obtaining quick information as a QR code?

141 responses



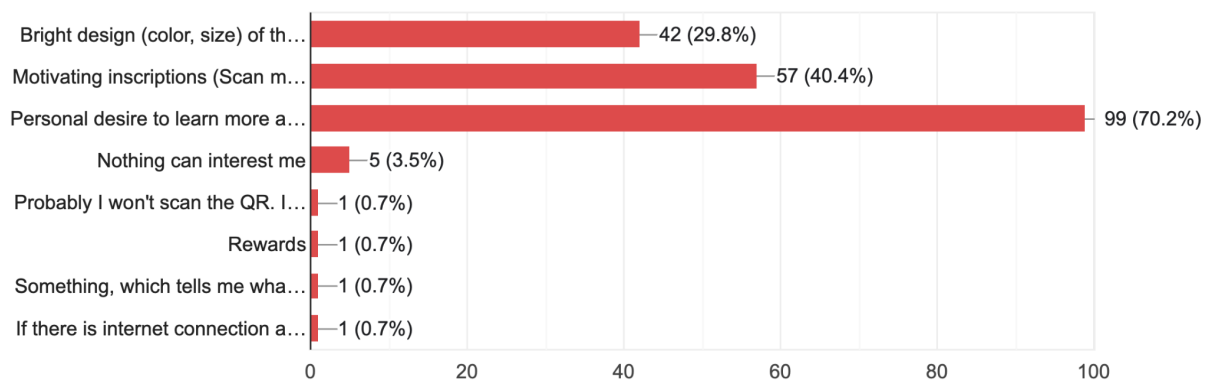
7) Can you read information encrypted using a QR code?

141 responses



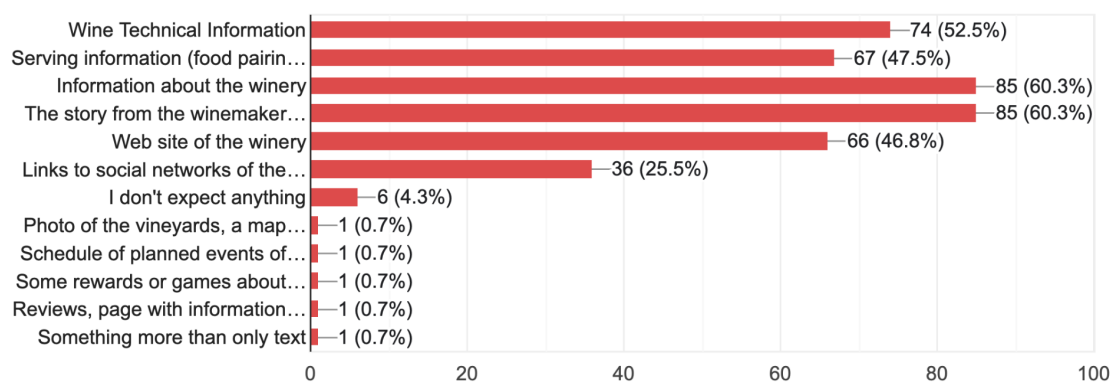
8) Imagine a situation where you found a QR code on the back label of a wine bottle. What will motivate you to scan it? (Multiple answers possible)

141 responses



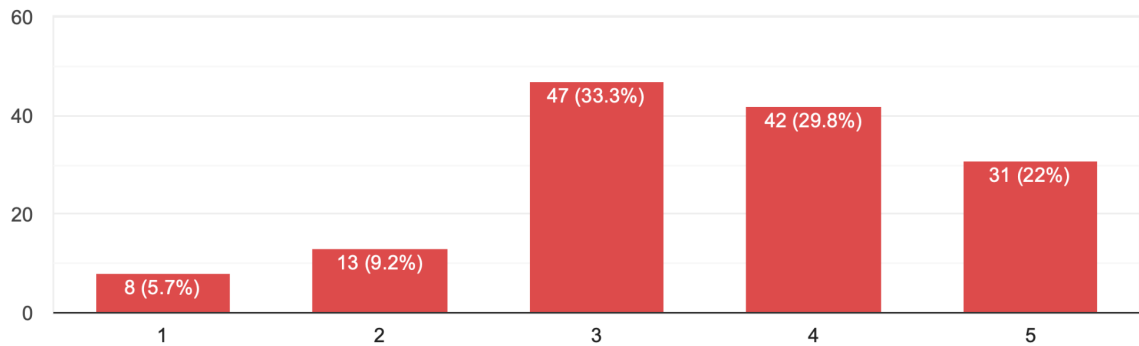
9) What information do you expect to get by scanning this QR code? (Multiple answers possible)

141 responses



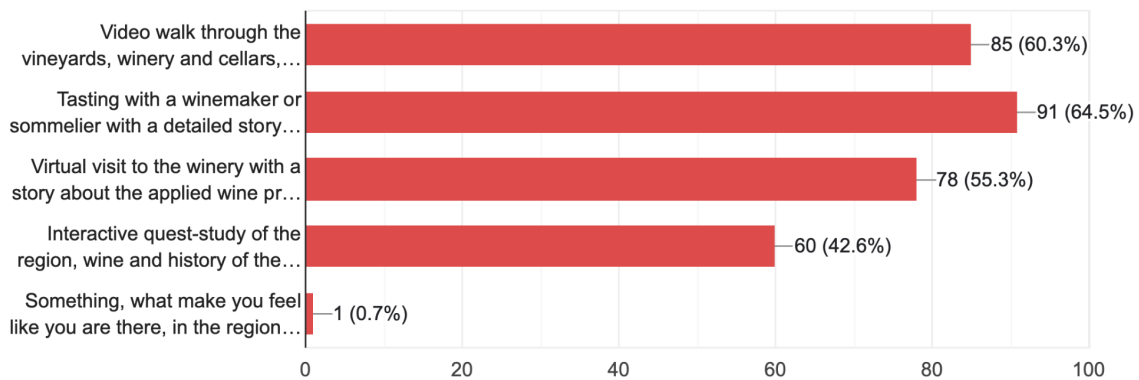
10) The QR code you found offers you a free virtual tour of the winery. How likely are you to participate? (1 - I am not at all interested in this, ...will immediately study all the information presented)

141 responses



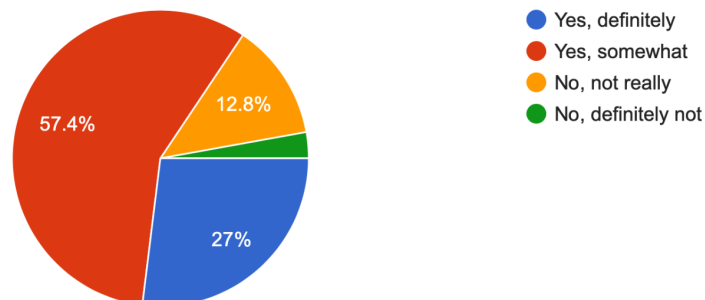
11) What activities would you be interested in as a virtual tour? (Multiple answers possible)

141 responses



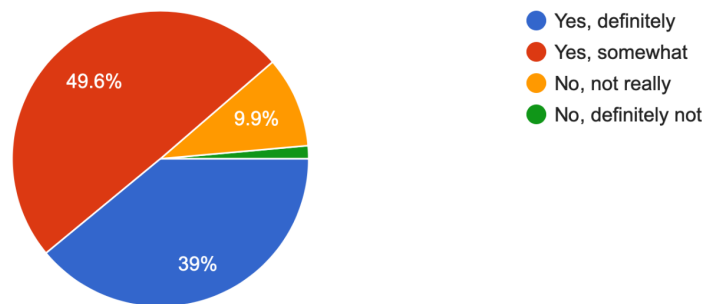
12) Would you be more likely to visit a winery/wine region or take part in a wine-related event after a virtual tour?

141 responses



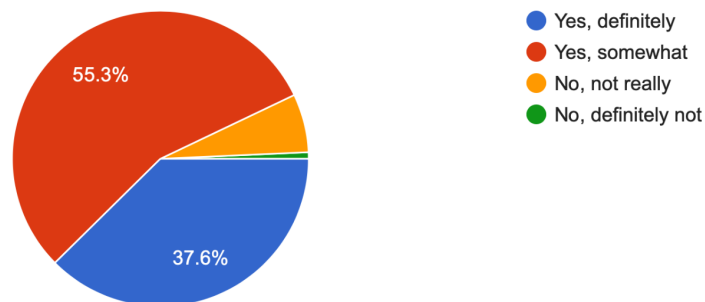
13) Would you be more likely to repurchase this brand of wine?

141 responses



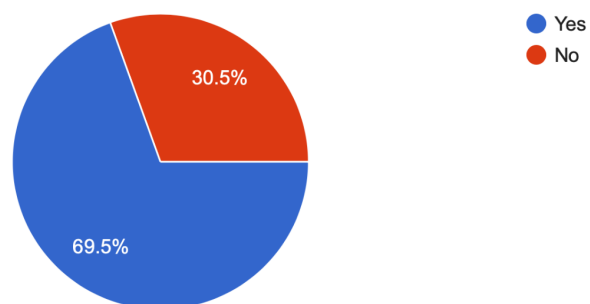
14) Would you recommend this wine to your friends/acquaintances/family?

141 responses



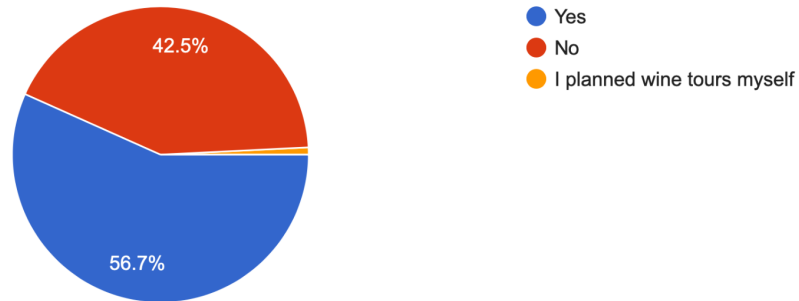
15) Have you ever visited wineries in real life?

141 responses



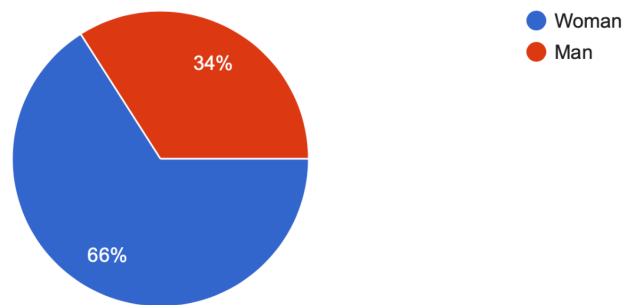
16) If you answered yes to the previous question, did you take part in the tourist activities of the winery you visited?

127 responses



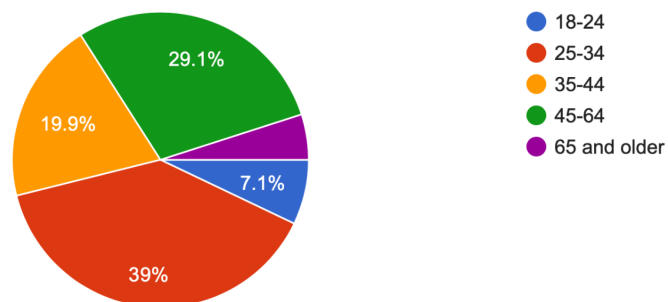
17) Gender

141 responses



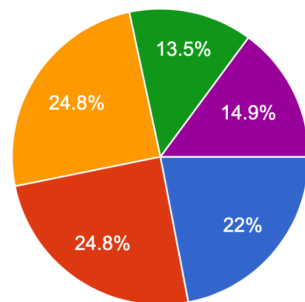
18) Your age

141 responses



19) How often do you drink wine?

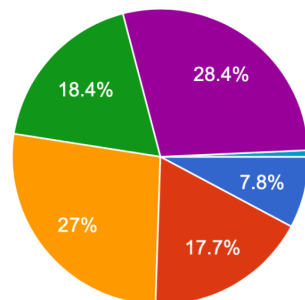
141 responses



- More than once a week
- Once a week
- 2-3 times a month
- Once a month
- Several times a year

20) How often do you buy wine?

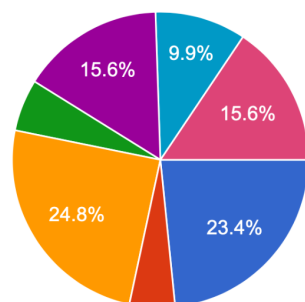
141 responses



- More than once a week
- Once a week
- 2-3 times a month
- Once a month
- Several times a year
- I don't buy

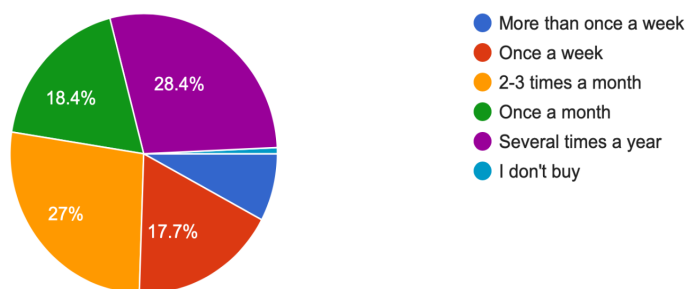
21) Which category of wine consumer do you consider yourself to be?

141 responses



- I love wine, but I often don't know what to buy / I choose wine based on the d...
- I have knowledge about wine / I like to be the first to try this or that wine / Win...
- I consider myself knowledgeable about wine / I like to explore the wine sectio...
- I drink wine during the dinner, with fa...
- If I find a brand that I like, I try to stick...
- I believe that you can buy good wine...
- I don't know much about wine, I just lo...

Annex 3. Frequency of wine purchases by survey respondents



Annex 4. Malepère wine region

LA CARTE



- | | | |
|----------------------------------|------------------------------|-----------------------------|
| 📍 1 - Anne de Joyeuse | 📍 7 - Domaine des Souleilles | 📍 13 - Le Pas de la Dame |
| 📍 2 - Château de Caux et Sauzens | 📍 8 - Domaine Girard | 📍 14 - Domaine Rose et Paul |
| 📍 3 - Château de Cointes | 📍 9 - Domaine la Louvière | 📍 15 - Les Cèdres de Robert |
| 📍 4 - Château de Serres | 📍 10 - Domaine la Sapinière | 📍 16 - Vignobles Vendéole |
| 📍 5 - Château Guilhem | 📍 11 - Château la Soujeole | 📍 17 - Mas de mon père |
| 📍 6 - Domaine de Matibat | 📍 12 - Domaine le Fort | 📍 18 - Château Belvèze |