

# MADEIRA WINE CONTRIBUTIONS FOR MADEIRA ISLAND SUSTAINABLE TOURISM

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## ABSTRACT

Madeira Island is an Atlantic island that was colonized by Portuguese in the year 1420. The first vineyards introduced in the island were Malmsey, imported from Greece, in the XV century leading to the production of liquorish wine, Madeira Wine. Recently, table wine is also produced.

The present study aims to understand the contribution of Madeira Wine production on touristic experiences as well its role on landscape maintenance, local identity, natural resources conservation, job creation and economy.

A questionnaire survey was delivered to tourists, and two semi-structured interviews: to a local wine producer- Quinta do Barbusano and a Chef- Dúlio Freitas respectively, on December 2018. In Quinta do Barbusano two red wines, two white wines and one Rosé are produced. Since 2018, Quinta do Barbusano promotes a new product “Wine tourism”, offering wine tastings, farm’s visits and a lunch providing regional gastronomy, using local products.

Secondary data was also consulted, such as governmental and national Official statistical data, concerning Madeira Wine production and Madeira Wine commercialization.

The results presented in this study reflect that Madeira Wine production can play a key role in sustainable tourism.

The authors also featured as research limitations the need to improve survey sample size, as well the number of interviews in order to reach particularly relevant actors in this field.

Keywords: Wine Tourism, Destination Identity, Sustainable Tourism, Landscape Conservation, Heritage Conservation.

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## 1. INTRODUCTION

The Madeira Archipelago is located in the Atlantic Ocean, between the parallels 30 ° 01’ and 33 ° 08’ and the meridians 15 ° 51’ and 17 ° 16’. The archipelago is configured by

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several small volcanic islands, with a total of 796,77 Km<sup>2</sup> (Prada, 2000). Madeira Island, is the biggest island of the archipelago, with an area of 737 Km<sup>2</sup> (Prada, 2000). Early, after the colonization in 1420, vineyards were introduced in Madeira Island (Câmara, Alves & Marques, 2007). Since then, wine production started in Madeira Island. Wine production in Madeira island, particularly fortified wine, achieved a relevant role on regional economy, as presented in Table 1.

Considering the empirical perception about the importance of Madeira Wine, the authors set out a research in order to understand the contribution of Madeira wine production to sustainable tourism in Madeira Island.

Madeira Island colonization started in 1420, and the first vineyards were introduced early in the XV century. Malmsey was the first introduction, originally from Greece (Câmara, Alves & Marques, 2007). Since then, wine production started as a fortified wine, produced in the demarcated region of Madeira Island, with Madeira Designation Origin (DO), as “Madeira Wine (DO) (<http://www.vinhomadeira.pt/ivbam-150.aspx>). Nowadays, other varieties of wine grapes are being used to produce Madeira Wine namely, Verdelho, Bual, Sercial and Terrantez.

Other wine grapes were also brought by the first colonizers, from the North of Portugal-Minho, according to Instituto do Vinho do Bordado e do Artesanato da Madeira, I.P (<http://www.vinhomadeira.pt/ivbam-150.aspx>). Since the 90's, table wine started also to be produced, such as red wine, white wine and Rosé. In the present research, we will discuss the role of Madeira Wine production, namely Madeira Wine and table wine, as one of the strategies to promote sustainable tourism in Madeira Island.

Madeira Island started to be visited before the XVII century, (Silva, 1994), and in this period Madeira Island represented a strategic point in the oceanic trips to Africa, Asia and America. Since then, Madeiran landscapes, the climate, its natural richness, peacefulness and the hospitality of Madeiran people were mentioned by visitors. During the first half of the XIX century, Madeira Island played a very important role on therapeutic treatments due to its climate (Gama, 2011). The insecurity in Europe at that time (Gama, 2011) contributed significantly to improve Madeira Island popularity and tourism started to establish. Currently, tourism is the most important economic activity in the island.

The year 2017, was one of the best years for tourism business in Madeira Island. Madeira showed an increase of 12,9%, on the total of the number of nights, when compared with 2016 ([https://www.ine.pt/ngt\\_server/attachfileu.jsp?look\\_parentBoui=337818965](https://www.ine.pt/ngt_server/attachfileu.jsp?look_parentBoui=337818965)).

According with the official data, it was registered a total of tourist arrivals of 1.4 million, in 2017. According with the Portuguese National Statistical Institute (INE) 89,3% of tourists visiting Madeira were originally from foreign countries and 10,7 %, are Portuguese (<https://estatistica.madeira.gov.pt/download-now/economica/turismo-pt/turismo-emfoco-pt/emfoco-turismo-pt.html>).

The United Kingdom was the first market in 2017, with 28,6% of the total of tourists visiting Madeira Island, followed by Germany with 27,6%. France had a contribution of 9,4% of the arrivals, Netherlands with 4,5%, Poland with 4,1% and other countries (Spain, Belgium, Norway, Denmark, Sweden, Finland, Russia) had a 25,8% contribution. The Revenue Per Available Room Average (Average RevPAR) in 2017, in Madeira Island was 51,18 euros, according with the available INE data.

Nevertheless, during 2018, Madeira revealed a decrease of -1,9% in tourist arrivals, which reflects a decrease of 25 % in the UK market and 15% less in the German market ([https://www.ine.pt/ngt\\_server/attachfileu.jsp?look\\_parentBoui=337818965](https://www.ine.pt/ngt_server/attachfileu.jsp?look_parentBoui=337818965)). These results can be linked with several factors such as the frequent landing difficulties in Madeira airport, with many delays and flight cancelations, the increase of tourist confidence in less safe

destinations (Tunisia, Egypt, Turkey, Morocco) and the prices of flights to Madeira Island, which are very expensive, when compared to other destinations.

Considering, the fact that tourism represents 25% of Madeira GDP ([https://www.ine.pt/ngt\\_server/attachfileu.jsp?look\\_parentBoui=337818965...](https://www.ine.pt/ngt_server/attachfileu.jsp?look_parentBoui=337818965...)), it is important to implement strategies to reduce tourism losses. Accordingly, and as proposed in this paper, sustainable tourism presents itself as an alternative, to combat the losses that have been verified, since last year.

Madeira Island offers tourists the possibility to experience exclusivity and authenticity. Madeira Wine production is a relevant asset in tourism experience, oriented to tourists seeking for activities, products and services based on the specific local production, history, cultural and natural features which, in turn helps to shape a specific identify of the destination.

Thus, in the present research we discuss briefly wine production, as a key contributor for sustainable tourism, in Madeira Island. Consequently, we contacted a wine producer-Quinta do Barbusano (S. Vicente), a Madeiran Chef and a survey was delivered to tourists, in order to understand the contribution of Madeira wine production for sustainable tourism, in Madeira Island.

The implementation of a sustainable tourism model in Madeira Island, linked to Madeira Wine production, leads to the definition of what we mean by sustainable tourism.

According to Bramwell & Lane (1993) in the first edition of the *Journal of Sustainable Tourism*, the authors claim that the term sustainable tourism is a consequence of the environmental and social impacts caused by tourism.

After the RIO conference (1992), the term “sustainable” and the concept of sustainable tourism were introduced in tourism and Agenda 21.

Yet, several definitions of sustainable tourism have been presented until the present moment and Butler (2007) defined sustainable tourism as “tourism developed and maintained in an area and on a scale that ensures its viability over a long period of time without damaging the environment (human and physical) and without compromising the development and well-being of other activities and processes. “

According to Bramwell, Higham, Lane, & Miller (2017) sustainable tourism is understood as “a normative orientation aimed at redirecting social systems and behaviour towards sustainable development.

In this paper we consider the concept of sustainable tourism and sustainable development, as determinants of the competitive advantage of tourism destinations, particularly Madeira Island.

In September 2015, the United Nations General Assembly approved the document “Transforming our World: The 2030 Sustainable Development Agenda”.

The seventeen Sustainable Development Goals (SDG’s) and the 169 points of the action plan aim to eradicate poverty, in its different forms, the mitigation of the effects caused by climate change, the reduction of conflicts, the promotion of sustainable consumption and innovation and the integration of the dimensions of sustainability, economically, socially and environmentally, throughout the world.

In the SDG’s, tourism is explicitly mentioned in three of the seventeen goals: -Goal (8.9) “To promote inclusive and sustainable economic growth, fair and productive employment for all, promoting local culture and products”; Goal (12b) “Develop and implement tools for monitoring sustainable tourism” and Goal (14.7) “To increase the economic benefit of small islands and least developed countries through the sustainable use of marine resources, including sustainable management of fisheries resources, aquaculture and tourism.”

Considering the relevance of wine production and sustainable tourism, Montella (2017) discussed the relation between culture and the particularities of each community and place, considering the importance of implementing strategies based on collaborative networks where

stakeholders, partners and locals are key elements for sustainable tourism. Previously, Poitras and Getz (2006) stated that in sustainable tourism, it is essential the identification and management of the resources, such as the land and water, labour, capital and infrastructures inputs necessary for grape growing and wine making. The authors also highlighted the need to consider the specific impacts of wine tourism, namely the increase in traffic in rural areas, development of services and facilities related with wine tourism and wine production, among others. Accordingly, Poitras and Getz (2006) pointed the development of tourism facilities, such as visitor facilities at wineries and events, information centres, wine museums, as consequences derived from wine tourism offers. Following the same line of thought, Hede (2008) considered food and wine festivals as key elements to enhance sustainability, which is linked to the established business goals and business competitiveness (as cited in Montella, 2017, pp.113). By the other hand, Getz (2000) gave a broader vision of wine tourism sustainability, considering not only business management but also considerable skills in natural resources knowledge and management.

Therefore, Madeira Island as a mature wine region, has the opportunity to shape its touristic offer, implementing specific actions in order to promote resources conservation, such as landscape and vineyards, water and soil exploitation.

According to the above, this paper presents a reflection on the contribution of Madeira wine production for sustainable tourism and in its direct implications on the historical-cultural heritage conservation, on Madeira's economy, contributing to local population settlement, improving their living conditions and improving environmental performance, according with the principles set out in the Sustainable Development Goals' (SDG's) of the United Nations.

## **2. RESEARCH OBJECTIVE**

The information consulted corroborated the possibility to implement a sustainable tourism model in Madeira Island, linked with wine production. At the same time, research opportunities were identified, namely at the level of the relationship between sustainable development and wine tourism in Madeira Island. Thus, the main objective of this work is to understand the contribution of Madeira wine to sustainable tourism, in Madeira Island.

## **3. RESEARCH QUESTION**

To what extent does Madeira wine production enhance sustainable tourism in Madeira Island?

## **4. METHODOLOGY**

Considering the main objective of this research- Understanding the contribution of Madeira wine to sustainable tourism in Madeira Island, the authors adopted as research strategy, a mixed-method approach.

Accordingly, a thorough collection of information, including reports and statistical data, available for this region, was performed.

Therefore, a quantitative and qualitative approach, with the application of a questionnaire survey (quantitative survey) and semi-structured interviews were carried out. Statistical information about Madeira wine production, was collected in governmental official publications, analysed and processed.

The methodology used in the present research, reflected the need to answer the research question, using an inductive approach (Bryman, 2012).

Two semi-structured interviews were delivered, to a local wine producer and to a Chef, respectively in December 2018. The interviews were performed in order to obtain individual professional perceptions about Madeira wine production and its role on sustainable tourism in Madeira Island.

The visit performed to Quinta do Barbusano, was of particular interest at the level of non-participatory observation and allowed to have a perception in loco, of one of the areas, of wine production in Madeira Island.

A survey was delivered to 68 tourists visiting Madeira Island, in 2018, during the month of December, in order to obtain tourists perception, about wine production in Madeira Island. The sample was defined using a simple random sampling and tourists answered the questionnaire survey, in Funchal city, individually.

In addition, a relevant literature review was carried out, and publications and studies were analysed to obtain relevant information.

The key players are a Madeiran wine producer, a Madeiran Chef and tourists that were visiting Madeira Island, during the month of December, in 2018.

## 5. ANALYSIS AND DISCUSSION

In 2017-2018, Madeira Island produced 3,95 million liters of wine with Denomination of Origin (DO) «Madeira» or «Madeira Wine» (<http://www.vinhomadeira.pt/Estatística-30.aspx>). There were also produced 1.522 hectoliters of wine with DO «Madeirense» and 136 hectolitres of wine with Geografic Indication (GI) «Terras Madeirenses» (<http://www.vinhomadeira.pt/estat%C3%ADstica-30.aspx>).

According with the Instituto do Vinho do Bordado e do Artesanato da Madeira, I.P., Madeira Wine production is commercialized mostly in Europe (77,5%) where France is the first consumer, corresponding to 32% of total commercialization. Portugal contributes with 18%, followed by Germany with 6,9%, Belgium with 5,3% and Madeira Island 15,6%. Japan contributes with 7,9% of the total commercialization, USA with 6,4%, Switzerland 2,7% and China and Canada with 1,2% (<http://www.vinhomadeira.pt/Files/Filer/Microsite/PDFs/Comercializa%C3%A7%C3%A3o%20Vinho%20da%20Madeira%201976%20a%202018%20INGL%C3%A9s.pdf>)

Table 1. Commercialization of Madeira Wine (DO) in Euro, between 1976 and 2018

YEAR	Commercialization of Madeira Wine (DO) 1976-2018	
	QUANTITY (LITERS)	VALUE (EURO)
1976*	4177270	637903,53
1977*	4566990	969811,61
1978	4673253	1402181,83
1979	5060575	2111257,98
1980	3521442	2021670,88
1981	3796811	2279643,16
1982	3228379	2363449,81
1983	3551154	3191412,34
1984	3538226	4306693,69

1985	3347929	4775064,08
1986	3869501	6642232,3
1987	3516251	7548560,53
1988	4048311	9593198,88
1989	3836996	9234542,77
1990	3682074	9466831,96
1991	3795033	10624081,49
1992	3570476	10101281,63
1993	3543749	10143312,23
1994	3472284	11557654,27
1995	3752875	13499251,19
1996	3647644	13997532,6
1997	3709957	14874268,25
1998	3875241	15716464,55
1999	3627257	15706979,81
2000	4017646	17066881,94
2001	4707425	18650967,79
2002	2818298	12038641,51
2003	3355238	13598723,78
2004	3591524	14193670,99
2005	3398364	14342803,56
2006	3356775	14598977,72
2007	3777142	16623209,96
2008	3415054	15621158,3
2009	3273407	14535223,92
2010	3277615	14975315,3
2011	3012266	15274343
2012	3407343	16487228
2013	3187681	16815757,01
2014	3372160	17904794,09
2015	3329995	17999319,5
2016	3169834	17688588,45
2017	3218243	19117400,68
2018	3365721	19217806,61

Source: <http://www.vinhomadeira.pt/Files/Filer/Microsite/PDFs/Comercialização%20Vinho%20da%20Madeira%201976%20a%202018%20INGLÊS.pdf>

\*In 1976 and 1977 data do not include commercialization to Portugal Mainland

Table 1 shows the economic relevance of Madeira Wine production, and the evolution on income, since 1976 until 2018.

Considering the economic relevance of Madeira Wine production, as mentioned above, local government developed a set of annual events in order to attract tourists and to improve regional economy. Some of the events are Madeira Wine Rally in August, Madeira Wine

Festival in September, recently the Stars Route-Gourmet Festival with Michelin Stars Chefs, in March and the Madeira Food and Wine, in the month of September.

According to Turismo da Madeira (<http://www.visitmadeira.pt/pt-pt/info-uteis/informacao-turistica-regional>), hotel occupancy in 2017 reached a value of 88% during Madeira Wine Festival and Madeira Food and Wine (September) and in 2018, it was of 86,7% during the same period.

Visits to wine cellars is also available in Madeira Island. Since the year 2000 wine tourism experiences emerged as a new tourism product, in Madeira Island (<http://www.vinhomadeira.pt/Estatistica-30.aspx>).

The research carried out in this paper contributes significantly to the understanding of the importance of Madeira wine for sustainable tourism. The results obtained from the interviews and questionnaires will be presented and discussed in this chapter.

## **5.1 Survey Results**

The survey results showed that tourists don't visit Madeira due to Madeira Wine. Tourists also mentioned that they knew already Madeira Wine, before traveling to Madeira. Nevertheless, respondents mentioned interest on visiting wine producers, and that they don't consider Madeira as a wine destination. The respondents also mentioned their intention on buying some bottles of Madeira Wine and bottles of other wines produced in Madeira. Tourists who don't know Madeira Wine Festival, mentioned their intention to visit Madeira for that purpose. According to the survey, tourists considered vineyard landscape very attractive and mentioned the particular beauty of the slopes of Madeira Island, covered by the vineyards.

## **5.2 Semi-structured Interviews Results**

Quinta do Barbusano was our local partner. Data collection, in the semi-structured interview delivered to the manager of Quinta do Barbusano, provided the perception of a local producer and complemented official data consulted. Quinta do Barbusano produces 2 red wines, 2 white wines and 1 Rosé. Quinta do Barbusano achieved a total of 75 000 bottles of wine, in the year 2018. The farm has an extension of 17 hectares and the commercialization is made directly to tourists, local visitors and local supermarkets.

From the total production, 1500 bottles were selected to be kept in S. Vicente Caves (basaltic lava tubes). The wine is tested each 2 months and the main objective of the experiment, is to test the influence of temperature in the wine quality.

In 2018, Quinta do Barbusano implemented a new touristic product, "Wine tourism". Visits take place during a period of 4h each day. Tourists visit the farm, taste the wines and they can also have a typical Madeiran lunch, prepared with local products. During grape harvest season, tourists can also participate. Quinta do Barbusano is located in the North Coast of Madeira Island, where there is the most important area of the indigenous forest "Laurisilva". In Quinta do Barbusano tourists are invited to a slow tourism experience. There, tourists have the opportunity to experience the calmness, quietness and engage with the beauty of the surrounding landscapes.

Quinta do Barbusano implemented also a marketing program and for that, they are delivering similar experiences to Portuguese journalists, Belgium wine specialist, among others.

Through their commitment with regional development, Quinta do Barbusano hires local workers and preferably establishes partnerships with local producers (S. Vicente).

The second semi-structured interview was delivered to a local Chef. The Chef is responsible to define each year the "Food and wine Festival" menu. The menu integrates regional cuisine

and Madeiran wines, joining the appropriate wine, for each food. All the dishes are prepared with local products, delivered by local producers and local suppliers.

Based on the information obtained, in this chapter we intend to start a discussion about the contribution of Madeira wine to sustainable tourism in Madeira Island, considering the various dimensions of sustainability: social, historical-cultural, environmental and economic. In the paragraphs 5.1 to 5.4, the authors present their views and suggestions for implementing effective measures to improve life quality of local populations, the preservation of cultural heritage and regional identity, the preservation of the environment and natural resources, and local economic growth, according with the principles mentioned in the United Nations SDG's.

### **5.3 Social Impacts**

In recent decades there has been a significant desertification of the countryside in Portugal. Madeira Island is an example of this phenomenon. In the last 10 years there was a reduction of 14 000 residents and almost 10 000 were due to emigration fighting against unemployment and looking for better salaries and a stable life (<https://estatistica.madeira.gov.pt>). The analysis of the factors that have determined this phenomenon will not be addressed here, but it should be noted that the exodus of the populations to areas closer to the coast, to the main capital Funchal, as well as emigration, contributed for the country-side abandon. Therefore, we observe consequently, population aging, the reduction of manpower, leading to the decrease of employment offers, the closure of schools, closure of companies and productivity decrease.

Thus, sustainable tourism in Madeira Island, can be determinant for social dimension of sustainability, through:

- Creating better conditions for the population, in particular mechanisms to attract youngsters, establishing new businesses and job opportunities and investment incentives to avoid exodus and, in turn, attract skilled people to the region;
- Development of strategies to fix youngster population through the creation of tax benefits;
- Improving working conditions through measures to promote good labour practices and fair wages;
- Hiring locals, allowing preferential access to people living in the municipalities of Madeira Island;
- Considering local people in the activities to be carried out in the region;
- Preferential purchasing of products produced in the region, particularly agricultural production;
- Participation of local populations in decision-making, both at the level of tourist activity and at the political-administrative level, contributing to minimize social conflicts;
- Promoting quality and diversified education in order to ensure training of youngsters, but also to enable active adults to improve their skills and thus to provide a high-quality service. This action is not only an added value for the business sector, but it is also of great importance in improving self-esteem of local population, contributing directly to preserve their cultural heritage.

### **5.4 Impacts on Historical and Cultural Heritage**

The impacts of tourism on local populations and on historical and cultural heritage are a subject of study that has been addressed by several researchers. We understand that sustainable tourism through Madeira Wine production, can contribute significantly to the preservation of the historical-cultural heritage, through:

- Reduction of local and regional identity;
- The creation of tourism products that respect local cultural values;
- Dynamization of region's cultural and historical heritage;
- Regulation of the existing touristic activities and creation of new tourism products, namely Nature Tourism, Wine Tourism and Slow Tourism;
- The compatibility of the economic activity with the touristic activity, in order to guarantee the preservation of the cultural and historical patrimony of the region.

### **5.5 Environmental Impacts**

Nature, the landscape, the populations, the cultural and historical heritage, are some of the main attraction elements of tourism destinations. It is therefore essential to take into account the impacts of this sector at different levels. In this point, we will analyse the main environmental impacts of tourism and will present some suggestions, with a view to their minimization and mitigation.

Within the environmental impacts, we can highlight that tourism contributes to:

- Solid waste increase;
- Water and energy consumption increase;
- Atmospheric emissions increase;
- Noise increase;
- Impacts on local fauna and flora;
- Impacts on the geological heritage;
- People increase, both visitors and manpower, in the region.

Through sustainable tourism, Madeira Island, can minimize environmental impacts and improve the conservation of biodiversity and the environment in general. Madeira Wine production plays a decisive role in avoiding the abandonment of the soils and on the preservation of the humanized landscape.

Taking into account the environmental impacts identified, some environmental measures are suggested in order to mitigate the negative impacts.

### **5.6 Environmental Mitigation Measures**

- Implementation of a tourism management plan in Madeira Island, considering natural areas, land management plans and the general tourism management strategy, at the level of the urban and rural management;
- Definition of the carrying capacity in natural areas, taking into account what is defined in Madeira's tourism management strategy;
- Implementation of measures to reduce solid waste production by visitors, residents and local businesses, in particular through the implementation of awareness-raising campaigns and the implementation of effective measures, such as providing reliable information about local water quality and encouraging their consumption through the use of recyclable bottles; sensitizing local companies to purchase products in recyclable packaging; giving preference to the acquisition of regional products and consequently reducing transport costs and reduce atmospheric impacts;
- Raising the awareness of local entrepreneurs for the implementation of good environmental practices, in particular through training actions and the implementation of environmental management systems, with the possibility of environmental certification;
- Encourage the use of public transport by creating an easy, comfortable and modern transport network;

- Improve the network of selective collection and consequent treatment of waste collected;
- Implementation of a monitoring and assessment program of environmental impacts and the definition of corrective measures adjusted in time and space.

### **5.7 Economic Impacts**

Tourism is an attractive economic activity at the global level, responsible for the dynamization of world economies, and it is responsible for a large number of jobs. According to UNWTO 2018, tourism accounts for one in each ten jobs, contributing to 10% of global GDP and to 30% of exports of services. The tourism sector in Portugal is one of the sectors that had most contributed to the national economy in recent years. Tourism revenues in Portugal amounted to a value of 15 153 360 euros in 2017, to 21.2 million tourists and to 65 385 210 overnight stays in 2017 (<https://www.turismodeportugal.pt/pt/Paginas/homepage.aspx>). Based on the data presented and the principles defined in the United Nations SDG's, a sustainable tourism strategy in Madeira Island, can contribute significantly to the development of local economy through:

- Establishing new businesses and job opportunities, through innovation;
- Diversifying economic income sources;
- Increasing local production. (agricultural, artisanal, cultural, technological, etc.);
- Promoting the flow of local production.

## **6. CONCLUSION**

In this research the authors aimed to start a discussion on the contribution of wine and Madeira Wine production for sustainable tourism in Madeira Island, what was corroborated by the results obtained.

Based on the information collected during our research, we can state that, wine and Madeira Wine production, can contribute positively to sustainable tourism in Madeira Island, as it can also contribute significantly to the recognition of this region as Madeira Wine (DO) production and improve economic, social, environmental and cultural, performance.

In general, the available governmental information shows that touristic animation actions, namely the festivals organized by Madeiran Island Regional Government, contribute significantly to attract tourists.

According with the results obtained in the semi- structured interviews and questionnaires, we can mention that wine production has a relevant role on landscape maintenance, preventing soil abandon and degradation, being extremely relevant in the maintenance of local culture and can also be responsible to promote a "Unique" touristic experience. The research also approached the importance of wine production at social level, namely improving local employment, local products consumption and enhancing local's self-esteem. At the economic level, our research showed that wine production gives an important contribution for local and national economy and contributes to improve destination competitiveness.

Considering the impacts of tourism on all sustainability dimensions, such as the environmental, social, historical-cultural and economic levels, a brief analysis was presented on the main impacts caused by tourism production. The authors also pointed out the importance of wine production for sustainable tourism, and suggested some mitigation measures, according with the principles defined in the United Nations SDG's.

## 7. RESEARCH LIMITATIONS/FURTHER RESEARCH

The results revealed the need to improve efforts in the research subject, by increasing our sample, namely the number of interviewees, as well the number of surveys delivered, expanding out of Funchal, to other villages, in order to have a broader perspective of the real contribution of Madeira Wine and wine production for sustainable tourism, in Madeira Island. Therefore, we consider adding to our research local participation, such as small wine producers, local workers in wine production, agricultural producers, local tour operators, hotel managers and tour guides.

As further research we aim to expand our study, with the inclusion of other components besides wine production, such as nature, gastronomy and cultural heritage, in order to obtain a broader knowledge about sustainable tourism in Madeira Island.

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