UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

**MASTER'S THESIS**

# FACTORS UNDERLYING WINE PURCHASES OF TAIWANESE MILLENNIALS

Ljubljana, March 2022 ANDREJA SAŠA OSTERC

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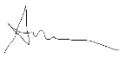
Ljubljana, 4 .3.2022 Author's signature: 

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## ABBREVIATIONS

**USA** – United States of America

**EU** – European Union

**WTO** – World Trade Organization

**COO** – Country-of-origin

**GEN Y / millennials** – consumers born between 1981-1996

**GEN Z** – consumers born between 1997-2012

# INTRODUCTION

Globalization has played an essential role in influencing wine consumption in developing markets in Asia. This has led to the development of higher living standards in some of these countries and created more trade opportunities.

In the past, wine was drunk for only special occasions in China. Today, it is common to drink it in casual home settings with friends (Lockshin, Corsi, Cohen, Lee & Osidacz Williamson, 2017). In 2018, China was the second-largest vine-growing region and the tenth-largest wine producer globally. Due to this industry development, consumption in China has transformed drastically in the last two decades, becoming the fifth largest wine consumer globally, just after the USA, France, Italy, and Germany (OIV, 2019a). This ranking is projected to change in the next decade considerably, with more Chinese consumers drinking wine. Most Asian countries have had no prior tradition of drinking grape wine. Thus, this custom needed to be learned. To penetrate these markets, wine producers had first to educate the consumers and get support from governments and trade agencies to promote wine culture in these regions (Anderson & Wittwer, 2015). High taxes on imported alcohol have led to lower consumption rates amongst most Asian nations, except for Hong Kong, which eliminated taxes on imports. Most of the wine imported in the past was expensive, and only a paucity of the population could afford it. High penetration and first-mover advantage have been vital in these markets in creating brand loyalty so far. This has led to a considerable proliferation of French, Italian, and Spanish wines in Asia (Lockshin & Corsi, 2012).

Other Asian nations, such as Taiwan and South Korea, are still considered developing markets for wine. Since 2016, both of these nations have seen major growth in this industry and present great opportunities for foreign traders in the future (Statista, 2021).

Much has changed over the last decade due to cultural divergence caused by social media globally, and consumers are changing rapidly. Technological advancements and more effective marketing strategies have helped unfamiliar or non-traditional wine-growing regions gain momentum in these new markets. In addition, free trade agreements between Australia, New Zealand, and some Asian countries have disrupted the market for French wines, as their wines have become more affordable and yield similar quality to consumers.

### Problem of choice

How the consumer chooses to purchase a wine brand depends on the consumers' perception of the quality. In the 'Case studies in the Wine Industry,' Santini and Cavicchi (2019) highlight two important information cues influencing consumer choices. The first cue is intrinsic, which directly measures quality perceived by sensory attributes, such as touch, smell, and taste. But when these intrinsic attributes are not available, consumers are left with extrinsic attributes to assist them in their decision-making process. They can then perceive quality based on the visual attributes, such as the color of wine, packaging design, and wine label information (Celhay, Cheng, Masson & Li, 2019). These perceptions create challenges

for marketers when branding wine. What kind of extrinsic factors could potentially sway consumers more? And how will they attract a consumer in a space with so many brands to choose from? This dilemma is the consumer's as much as the marketer's.

Extrinsic cues, which influence consumers' quality judgments of wine brands in a supermarket are: the brand name, the country-of-origin (COO), grape variety, back label statements, vintage, alcohol levels, and even the graphic design and typeface. Choosing the right wine is a difficult task with an abundance of information. How consumers use these extrinsic cues in their purchases has been attributed to the level of knowledge each individual has. Consumers with more product knowledge have been found to use a more complex combination of product attributes available as opposed to less knowledgeable consumers. Novices will spend less time analyzing the wine label information than more knowledgeable consumers (Perrouty, D'Hauteville & Lockshin, 2006).

Choosing more complex attributes when selecting wine brands has also been influenced by the motives behind the purchases, specifically for whom or what occasion the wine is being purchased. Knowing that consumers appoint different levels of importance to quality cues in different purchasing occasions gives marketers some insights for creating promotional collateral accordingly.

Not only is wine a complex product, perceived differently by each individual, but consumers themselves are also multifaceted. Creating marketing strategies for only a homogeneous population has failed to simultaneously present relevant meaning to younger and older wine consumers. Today, the most important and largest consumers are generation Y or millennials, born between 1981 and 1996 (Ting, Lim, Cyril de Run, Koh & Sahdan, 2018). This generation is the biggest group in the USA, China, and other developing countries and possesses the strongest buying power today (Gapper, 2018). Castellini and Samoggia (2018) studied the wine consumption habits of millennials in Italy. They summarized that they were more inclined toward innovation of products than previous generation groups had been.

Millennials in the USA have more often used Social Media and blogs to gather information about wines compared to older consumers. It was also important to them to read the information on the labels, such as ingredients, winery history, and the production method before purchasing. They did not mind wine packaging in a Tetra pack, a 3-L bag, or a classic wine bottle (Bauman, Velikova, Dodd & Blankenship, 2019).

Sellers-Rubio and Nicolau-Gonzales (2016) studied age influences on Spanish wine consumers and their willingness to pay a premium for sustainable wines. Their results showed that different age cohorts varied considerably with respect to their desire to pay a premium for sustainable wines. Older consumers were more willing to pay a premium price for sustainable wines than other age cohorts.

Knowing that studying consumer cohorts is problematic due to aging of consumers, it is important to regularly analyze the perceptions and attitudes of consumers in the wine market.

There have not been a vast number of studies researching the wine consumption behavior of millennials in Asia so far. Mainly, millennials have been studied in the USA, Italy, and Australia in the existing research literature. Not much has been studied on this cohort to my knowledge in Taiwan. This finding brings up many questions as to how wine marketers will attract the interests of these consumers. What do they need to learn about them to adapt their branding strategies?

**Purpose and goals**

The purpose of this master's thesis is to investigate, on the basis of the literature review, wine industry analysis, and empirical data, factors underlying wine purchases among Taiwanese millennials. With the thesis, I will get answers to the questions:

- Which wine attributes are perceived to be important quality indicators to consumers when deciding to purchase wine?
- What is the effect of wine knowledge on attribute importance ranking?
- How does purchasing occasion influence wine attribute importance ranking?
- What are common wine consumption habits amongst Taiwanese millennials today?

**Structure of the Thesis and Research Methodology**

The thesis is divided into four parts. The first part introduces the wine market in Taiwan, and key drivers for demand, using secondary data from government and statistical databases. This is followed by a brief chapter on the Taiwanese socio-demographic characteristics. The third part of the thesis is a literature review regarding consumer decision-making processes and wine quality attributes. Lastly, on the basis of the literature review, a quantitative study, with the help of an online survey, was used to understand the factors underlying wine purchases amongst Taiwanese millennials. An online survey is in particularly useful due to its convenience and low costs. With the use of primary and secondary data, this thesis provides an extensive analysis of the wine market in Taiwan.

# 1 TAIWAN WINE MARKET

## 1.1 History of wine drinking in Taiwan

This section will introduce Taiwanese cultural history and rudimentary wine drinking eras to understand the Taiwanese wine purchasing habits. Taiwan has had a diverse cultural history as it has been molded by many foreign nations for over 400 years. These influences came from Portugal, Spain, Holland, and Japan over this period. Japan ruled Taiwan for fifty years at the beginning of the 20th century, and consequently, some generations still speak Japanese in Taiwan today. Many of their customs remained even after their colonial rule (Yeh Kuo-Liang, 2009, p.2).

But after the collapse of the Japanese empire and the rise of the Chinese national party (KMT), led by Chiang Kai-Shek, new cultural policies were issued to endorse Chinese nationalism. Still, these were challenging to enforce as the Taiwanese were very ethnically and culturally diverse already before 1949, with no clear national identity, in addition to the many languages they had spoken on the island (Wang, 2014).

Nonetheless, some positive enforcements came from these new policies, especially economic ties with western countries, which invested in the rapid development of Taiwan. The same government stimulated the nation to obtain foreign education, particularly in the USA, Germany, and England. The graduates, upon completion, returned to Taiwan and brought with them western customs and traditions, and know-how. We could easily conclude that Taiwan has had a rich blend of eastern and western traditions, making the island a unique place for trade and business today (Yeh Kuo-liang, 2009, p.3).

It is not as common to hear of grapes or even grapevine cultivation (viticulture) from Taiwan. Viticulture is the science that studies how grapes are cultivated for the purpose of wine production. Interestingly, grape growing was already introduced on the island in 1900 by the Japanese for the purpose of grape consumption, as well as attainment of shade from vine trellises. After 1945, when the KMT took over the island, they incentivized the agriculture industry in producing grapes for winemaking purposes, as it was considered a more valuable crop than rice had been. This, in turn, had led the government into establishing the Taiwan Tobacco and Wine Bureau. This agency had a monopoly over the production, sales, and transportation of liquor, camphor and tobacco products for nearly 50 years and is still the largest wine distribution company in Taiwan today (www.nat.gov.tw).

In 1957, the Taiwan Provincial Government had increased loans to families who would have cultivated vines for wine production. This promotion attracted more farmers into converting their lands for grape cultivation. This, in turn, led to higher yields of grapes being produced for winemaking but also created an oversupply in the market. In addition, this monopoly system made it hard for the private sector to develop and caused barriers to competitiveness. The agency also imported many European grape varieties to the island, but they were challenging to grow due to heavy rainfall and the hot climate. Wine drinking was not as prevalent, and rice wine remained the predominant beverage of choice amongst most islanders (Chen, Cheng, Chang H. & Chang S., 2020).

In 2002, the monopoly of the alcoholic beverages sector was finally abolished and replaced with an alcohol and tobacco tax legislation, which had made the Taiwanese market more competitive and attractive for foreign investments (www.nat.gov.tw). In this same year, Taiwan joined the WTO, and, consequently, their drinking habits changed. In addition, increased taxes on spirits, out of which rice wine was included in the latter, led to a significant drop in demand for rice wine. Grape wine had become the alternative drink of choice after this.

In the last 15 years, wine consumption has been mostly influenced by product placement in movies, series, TV shows, social media, and even Japanese comic books. Previous research had suggested that product placement in movies and shows has proven to be an effective tool for increasing sales of products (Jin & Villegas, 2007).

The international documentary series '60 minutes' created some latent need for the world shifting towards wine drinking in the '90s. In the episode, The French Paradox, Morley Safer presented the findings of a French study, which suggested that red wine was beneficial in improving heart-related illnesses (CBS News, 2016). This ignited the demand for red wine, especially amongst the Taiwanese elites. At the end of the '90s, wine became so popular that it saturated the market and created a wine bubble (Ferry & Fulco, 2016). One particular comic book series, "Kami no Shizuku, or Drops of God," also greatly impacted wine drinking culture within the nation. The cult comic book is designed as an exploratory game, where the main characters in the stories have to find, through blind tasting, 13 most prestigious wines from all over the world to win their family's inheritance. The comic book leads the reader through an exceedingly educational wine tasting experience precariously through each character in the story. The winemakers, which have been mentioned in these comic books, have consequently increased their sales by soaring numbers. Some wineries in France couldn't even keep up with the demand coming from Asia because of this (Hardach, 2007). By 2014, they gained a readership of 300 million from Japan, South Korea, and Taiwan alone (Wilson, 2019).

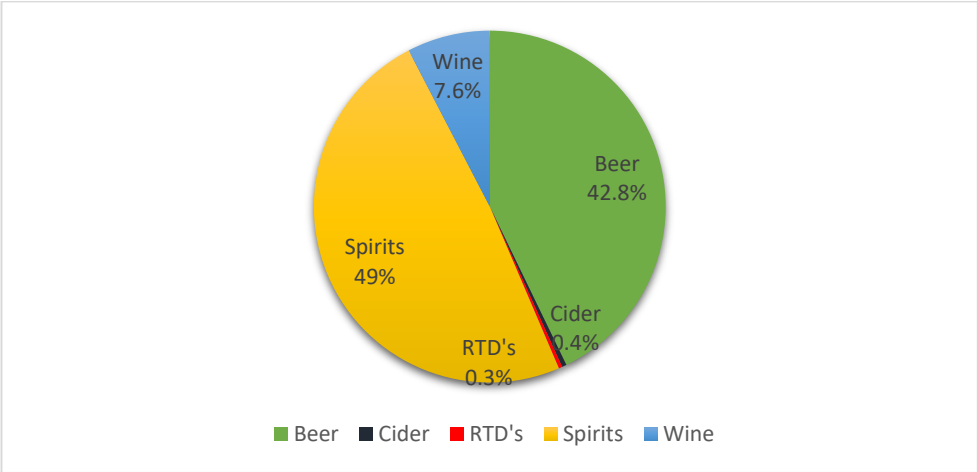
There has been a strong preference for French red wines in Taiwan, which has been heavily influenced by wine publications such as Decanter, Wine Spectator, and Wine Advocate (Australian Trade and Investment Commission, 2016). Wine trade shows, such as Wine Gourmet and Taipei Wine & Spirits Festival, have also become popular in Taiwan. The Taiwan Wine Academy (TWA) was the first education center offering official WSET diplomas on the island and has been present on the Taiwanese market since its establishment in 2008. Since then, TWA has gained 100k followers on their Facebook page (www.wineacademy.tw), which is impressive, given the fact they have only been present on the market for 12 years. Wine education is a relatively new establishment amongst the Taiwanese and has been gaining popularity as more youth have become eager to gain more knowledge in wine culture (Australian Trade and Investment Commission, 2016).

A vast media stimulation of wine consumption in Taiwan has led to increased demand for foreign wine. In order to investigate actual demand data on wine consumption today, the following section analyses government statistics and economic reports. Demand for wine has been operationalized by looking at indicators such as off-trade and on-trade sales of wine, number of wine shops per capita, imports of foreign wine, and sales of fine wine.

## 1.2 Analysis of the demand for wine in Taiwan

Taiwan's alcoholic beverage market share is dominated by spirits, followed by beer and wine (Figure 1). In the spirits market, whisky is the most sold variety beverage. This is mainly due to the prominence of local production of fine whiskies, such as Kavalan (Wong, 2020). Wine holds a 7.6 % market share in the alcoholic beverages market as of 2020 (Figure 1). Considering the market composition of alcoholic beverages, the value of sold beverages by category has seen different growths. Cider, ready-to-drink premixes (RTDs), and wine have all seen positive increases in sales since 2015. The biggest spikes in demand were seen for wine and cider in 2020. Demand for wine increased by 3.8%, cider by 9%, and RTD's by 4.1% in the same year, while demand for beer and spirits has actually decreased (Appendix 14).

*Figure 1. Alcoholic beverage market in Taiwan*




*Adapted from Passport (2020a).*

Ever since the fall of the Tobacco and Alcohol Monopoly in 2002, the Taiwan wine market has seen some cyclical turns. Firstly, the alcoholic beverage market is divided into off-trade and on-trade markets. The off-trade market includes distribution channels, such as supermarkets, convenience stores, and online shops. Restaurants and bars are considered part of the on-trade market. Between the years 2007 and 2014, off-trade sales came to a drop because of the global economic recession, decreases of vineyard surface areas seen in Europe, and decreases in global wine consumption (OIV, 2014). However, in 2014 the world wine market started slowly recovering, primarily due to increases in vine production in Asia, North America, and other non-traditional (New world) wine-growing regions outside of Europe, such as Australia, Chile, and New Zealand (OIV, 2014). This has also led to a surge in sales for wine in Taiwan after 2013.

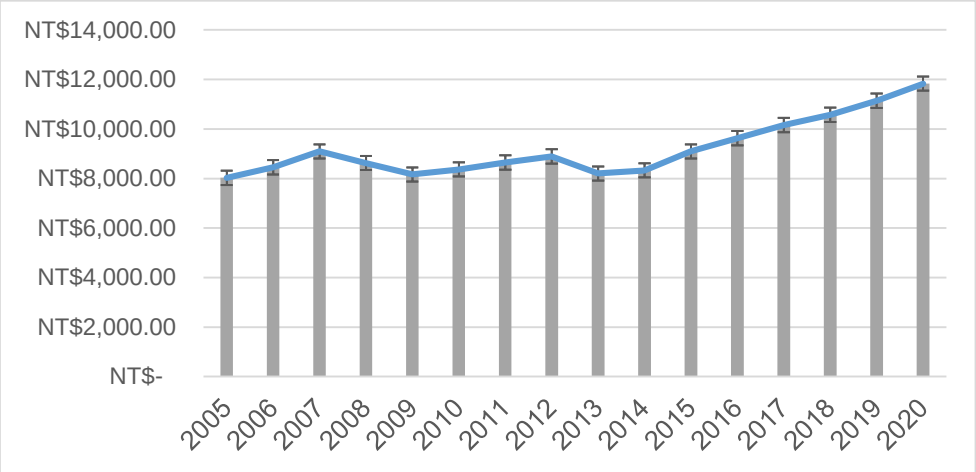
### 1.2.1 Off-trade and on-trade sales values of wine

The year 2020 saw a decrease in market share for on-trade channels due to the pandemic. The locals avoided crowded areas, and business dinners in restaurants were no longer as

common, with most meetings being held online. Most of the wine was sold in off-trade settings, such as supermarkets, specialty shops, and online (66.9%). The rest of the wine was being sold in on-trade settings (33.1%), such as restaurants and bars (Figure 3). Consequently, we have seen a 4.1% increase in off-trade sales in 2020. Figure 2 shows fluctuations in sales over the last fifteen years. The market has seen two major decreases in sales so far due to the global economic recession. The off-trade sales value reached 11,9 billion NT$ (US$ 420.34 million, exchange rate 1 $ = 28 NT$) at the end of 2020, a 31% increase from 2015 (Figure 2).

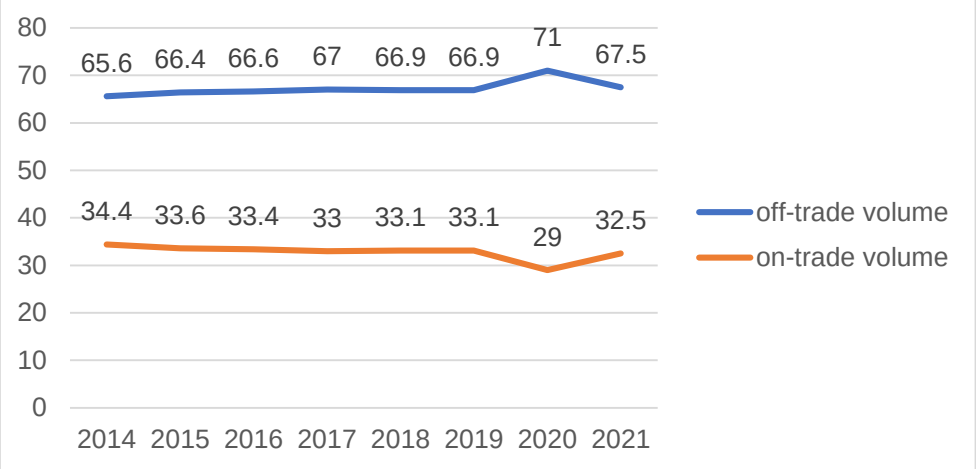
*Figure 2. Off-trade sales growth of wine from 2005 - 2020*

*(in million NT$)*




*Adapted from Passport (2021c).*

*Figure 3. Off-trade and on-trade market share from 2014 - 2021 (in %)*

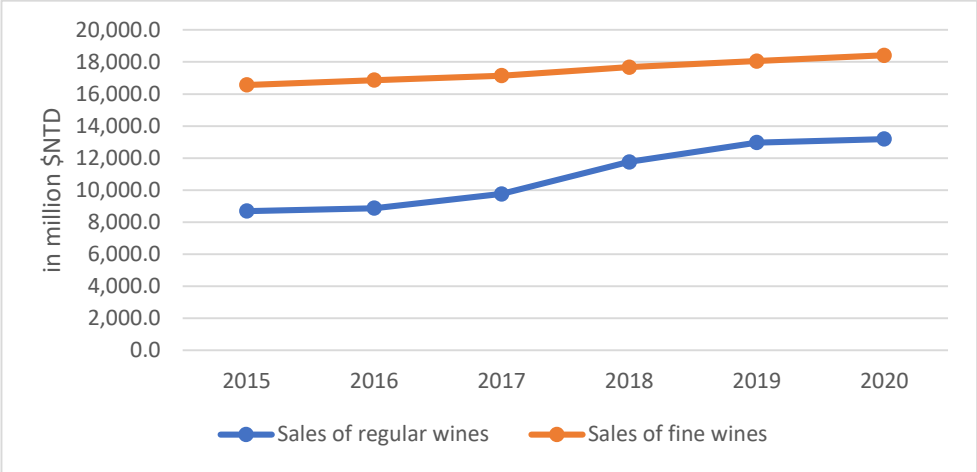



*Adapted from Passport (2021c).*

It has been found that Taiwanese consumers have become more health-conscientious and appreciate higher quality wines, which has consequently led to an increase in expenditures for fine wines (Zhou, 2021). Figure 4 shows the growth of sales values for regular wines and fine wines over a period from 2015 until 2020. Sales values of regular wines started decreasing proportionately with the increase of sales of fine wines after the year 2016. The fine wines market grew by 9% just in 2020 alone, reaching 18.4 billion NT$ in retail value (US$ 652 million). This presents many opportunities for foreign winemakers selling fine wines in Taiwan.

*Figure 4. Sales of regular and fine wines from 2015 – 2020*

*(in million NT$)*

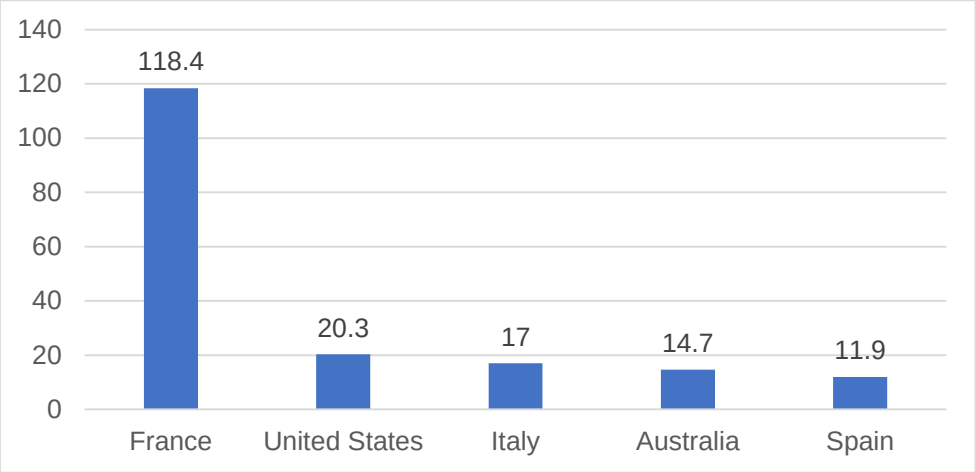



*Adapted from Passport (2021d).*

### 1.2.2 **Imports of foreign wine**

From the year 2015 to 2019, wine imports have been positively increasing by 1.1% on average. French wines have the largest market share, followed by wines imported from the USA, Italy, and Australia (Figure 5). Australian wines have become quite popular amongst the Taiwanese youth population because of their favorable prices and ubiquitous availability across the island in recent years (Australian Trade and Investment Commission, 2016).

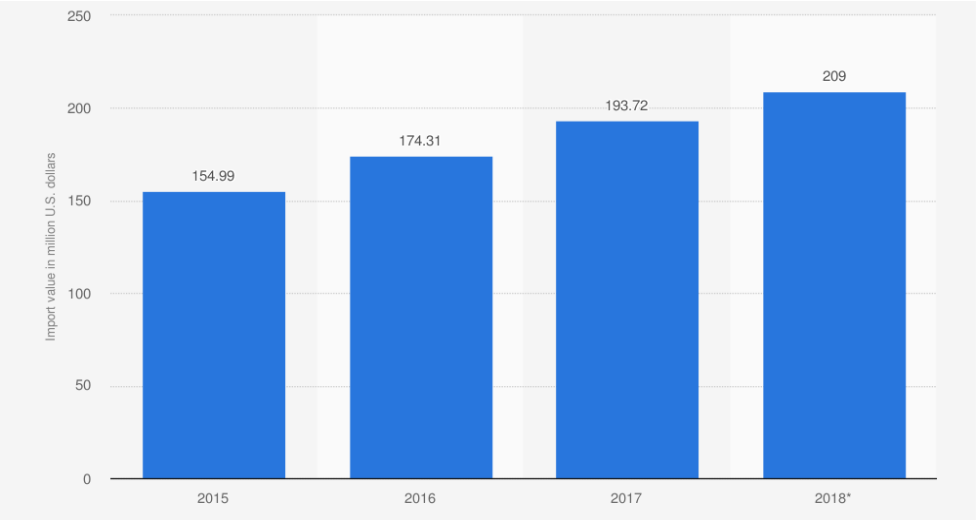
*Figure 5. Import value of wines to Taiwan in 2019, by country (in million US$)*




*Adapted from Statista (2020a).*

Figure 6 shows that wine imports in Taiwan have grown steadily since 2015. Between 2016 and 2017, there was an 11,1% increase in wine imports, reaching an annual import value of US$ 193.72 million.

*Figure 6. Annual import value of wine in Taiwan from 2015 - 2018 (in million US$)*




*Adapted from Statista (2019a).*

### 1.2.3 **Registered wine shops per capita**

To understand the demand for wine in Taiwan, I also looked at the statistics of registered specialty wine shops in the capital city of Taipei and compared the number of specialty wine shops to 7 major metropolitan cities in Asia as a cross-analysis (Table 1).

*Table 1. Number of registered wine shops per capita within 7 metropolitan cities in Asia*

| Cities in Asia by number of registered wine shops > 40 | Population by metropolitan city (in millions ) | Total number of registered wine shops in a city | Number of wine shops/ per 100k people |
|---|---|---|---|
| **Hong Kong** | 7.51 | **954** | **12.7** |
| **Singapore** | 5.86 | 432 | 7.3 |
| **Tokyo** | 37.39 | 208 | 0.55 |
| **Shanghai** | 27.05 | 141 | 0.52 |
| **Taipei** | 7.03 | 98 | 1.4 |
| **Beijing** | 20.46 | 79 | 0.38 |
| **Seoul** | 25.67 | 42 | 0.16 |

*Source: Own work.*

I selected these cities according to the number of registered wine shops found on Wine-searcher.com. I established the condition of inclusivity if the number of shops in a city exceeded 40. For an easier computation of the number of wine shops per capita, the numbers are shown per one hundred thousand inhabitants. The middle column ranks each city by the number of registered specialty wine shops. As Table 1 suggests, Hong Kong has the highest number of wine shops per inhabitant compared to other large cities in Asia. The table reveals that there are 12.7 shops per 100,000 inhabitants. The second-largest city by the number of wine shops per inhabitant is Singapore. Taipei city, which has 98 registered specialty wine shops, is the fifth-largest city in Asia by the number of wine shops. However, if we only observed the data from the third column, then Taipei becomes the third-largest city in Asia by the number of wine shops/per capita. This information is relevant to wine producers who wish to enter the Taiwanese market, as it represents a fairly high demand for wine drinking compared to other cities in Asia. It also presents a saturation of the market and greater berries to entry due to high competition.

# 2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF TAIWAN

## 2.1 Ethnicity and language

There are four major ethnic groups in Taiwan such as Hoklo, Han, Hakka, and Aboriginals (CIA). The Hakka ethnic group started emigrating to Taiwan in the early 16th century. Because the imperial government had suppressed them, this led them to migrate to more southern Chinese and island territories to live by their native traditions. Their genetic code is unlike modern Han Chinese, and they speak a different language. Their ethnicity is believed to have ancestral relation to Central Asians. The first settlers in Taiwan were not

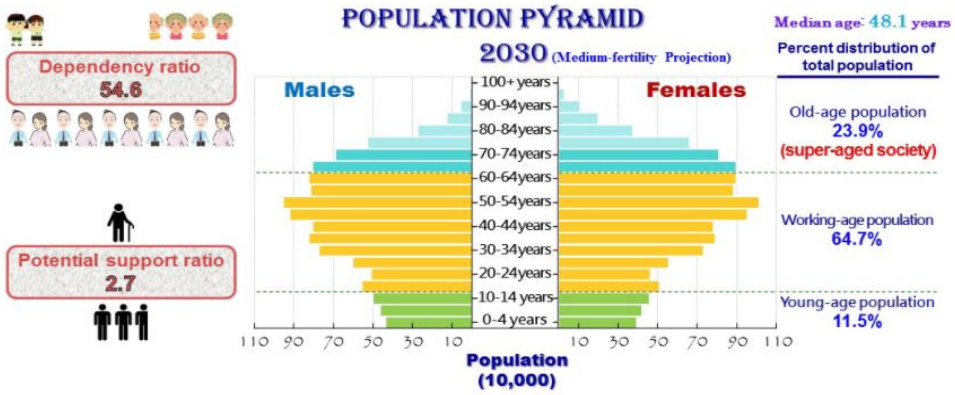
able to cultivate the land and instead found work in the government or education industries. This has made them quite influential in society, and many Hakka people hold leadership positions in Taiwan today. Currently, they represent 14% of the total population in the country (Lozada, 2005).

The majority of the population in Taiwan is of Hoklo-Han descent and represents 70% of the nation. These were settlers, farmers mainly, who migrated to the island in the 19th century from Fujian province, China, and brought with them their unique language, Min nan, and traditions. It was common for them to intermarry with the indigenous people of the island (Malayo-Polynesian descent). The aboriginal tribes have been living on the island for thousands of years and speak 16 distinct languages (Chepkemoi, 2018). The new mainland Chinese, who migrated to Taiwan after 1945 with Chang Kai Shek, represent merely 2% of the entire population today (taiwan.gov.tw). Mandarin Chinese is the official language spoken in Taiwan currently, along with the unofficial Taiwanese (Min Nan), Hakka dialects, and the 16 indigenous languages. However, Traditional Chinese characters are used as their formal written language.

## 2.2 **Population**

There are currently over 23 million people residing in Taiwan, out of which 45.51% of the population is 25-54 years old. The median age is 42.3 years old, similar to other European nations (National Statistics Bureau, 2020). Taiwan is considered the seventeenth most densely populated country in the world (National Statistics Bureau, 2020), with 651 inhabitants living per square kilometer. Most of the island is mountainous, and people live in the coastal regions, primarily in the north, where the capital of Taipei is located (National Statistics Bureau, 2020). Taiwan is an aging society. The old-age population is projected to reach 23,9% of the total population in 2030. This will cause an increase in the dependency ratio to 54,6% and a possible risk of increasing taxes (Figure 7).

*Figure 7. Population pyramid of Taiwan*




*Adapted from National Statistics Bureau (2020).*

### 2.3 Taiwanese millennials

There are 5.1 million registered millennials in Taiwan. This equates to 22.1% of the total population (National Statistics Bureau, 2020). The most concentrated area with millennial inhabitants is Taipei city, with 18% of the entire millennial population (National Statistics Bureau, 2020). The second and third largest areas are Taichung and Kaohsiung. Compared to the population structure of the USA and China, Taiwan holds a larger percentage ratio of millennials to the total population size on average than the USA (20%). On the other hand, it has a smaller percentage ratio to the entire population than China (28%) (HSBC, 2018).

### 2.4 Usage of the internet

Taiwan has been the center of technological revolutions, greatly influenced by foreign capital over the last few decades. Today, technology plays a crucial role in the everyday lives of all Taiwanese people. They have a high internet usage rate, with 86.2% of the Taiwanese population accessing the internet in 2019 (Statista, 2019b). The five most used services on the internet from first to last were: instant messaging, news, social media, forums and blogs, and online videos (TWNIC, 2020, p.12).

The Taiwanese are considered a tech-savvy nation who frequently purchase online. They are highly active users of social media platforms. Facebook is the leading social media platform in Taiwan, with one the highest penetration rates globally, reaching 94.2% of its internet users in 2020 (TWNIC, 2020, p.20). Compared to Japan and South Korea, Taiwan's population spends more time on social media each day (2h/day on average) (TWNIC, 2020, p.26). Another interesting aspect of Taiwanese online behavior, which shouldn't be kept unmentioned, is mobile gaming. Taiwan has a strong gaming culture, and 66 % of the millennials surveyed in wide nation study stated they played mobile games, and 46% of respondents ages 16-24 stated they played every day (Statista, 2020 b).

As millennials have been found as the most active online consumers in Taiwan, knowing where and how these consumers gather information before purchasing can benefit marketers today. According to the data on TWNIC (TWNIC, 2020, p.16), Taiwanese millennials mostly use social media platforms such as Facebook and YouTube to gather information on products, including wine.

## 3 CONSUMER DECISION-MAKING PROCESS AND WINE ATTRIBUTES

As a field of study, consumer behavior has greatly evolved over the last century. Theories on consumer decision-making have been established and supported with many models to define the process more accurately.

In a literature review, Santos and Goncalves (2021) studied a century-long list of theories and models touching consumer behavior and decision-making models. They discovered that

most of the theories from the 1960s and '70s serve as a foundational source in today's field of consumer behavior. As consumers have become more complex due to digitalization and globalization, naturally, these models had to adapt to the new environment. As decision-making is complex and varies from consumer to consumer, a common basis for its definition still holds - consumer behavior observes how the habitual, market, physiological, sociological, and psychological manifestations influence a consumer's decision-making process (Solomon, Bamossy, Askergard, & Hogg, 2006; Kotler, Kartajaya & Setiawan, 2017; Mohan, Sivakumaran & Sharma, 2013).

In the early 20th century, consumer behavior theories were based on economic estimations on the decision process, such as Decision analysis and Hierarchy of effects models. They were established from the belief that all consumers behaved rationally and maximized their utility. Psychologists, later on, criticized the common Theory of consumer behavior, stating all individuals could not make solely optimal decisions, and their preferences of goods were not fixed (Simon, 1956). Simon's Theory of bounded rationality proposed that consumers did not behave rationally in every purchasing situation; rather, their rationality was limited and driven by cognitive ability, imperfect information, and time constraint.

Stern (1962) believed that consumers were sometimes dependent on the product category and made impulsive purchases. He emphasized that these purchases occurred because of external stimuli, such as advertisements, packaging, warranties, promotions, and shelf positioning of products in stores. This idea of impulse purchasing is still applied to consumer behavior research today and has become most relevant in studying the consumers' journey in e-commerce (Mohan, Sivakumaran & Sharma, 2013).

Ajzen (1985) discussed how consumers make purchasing decisions as a result of their attitudes, subjective norms, and perceived behavioral control. For example, if an individual would establish a positive attitude towards a product, along with the product being socially accepted by peers and family, and lastly, if the individual had the means to pursue the desired behavior, then he or she would have a greater intention to purchase that product.

Kahneman (2011) suggested that consumers can make decisions heuristically, resulting from systematic thinking. The heuristic model of consumer decision-making believes that there are two different types of decision-making. Individuals are prone to making decisions based on either rational or heuristics judgments. In a rational effort to make evaluations between alternatives, consumers will make tradeoffs between the positive and negative outcomes of potential purchases (cost-effect). They will also make tradeoffs, based on the importance level of attributes a product possesses, using mental shortcuts, which shorten their decision-making journey.

Kotler, Kartajaya, and Setiawan (2017, p.66) differentiate consumer decision models by time: into the pre-connectivity and connectivity eras. In the pre-connectivity era, consumers were believed to have made purchasing decisions linearly or in a funnel-like way. The most used

model in marketing up until today has been the Engel, Kollat, and Blackwell model of consumer decision-making (Stankevich, 2017). The model illustrated that the consumers pass through five different stages in their decision-making journey. At the first stage, a consumer recognizes a problem or a need, then moves on to the second stage of information seeking, evaluating the alternatives, and finally choosing and using the products (Figure 8). The outcome in the decision-making process always leads to either dissonance or satisfaction. External stimuli such as advertisements always influence the initial need recognition and information-seeking stages.

*Figure 8. The traditional model of consumer decision-making*

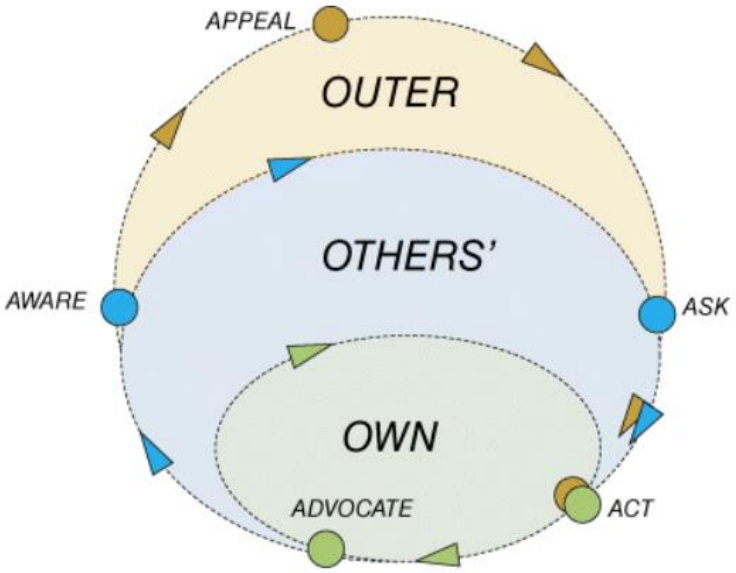

*Source: Kotler, Wong, Saundersg & Armstrong (2005, p.314).*

Marketers have used the above model for many decades to understand consumers' decision-making processes and to create their marketing strategies to captivate their attention. However, this model has also been the center of critique, as it lacks components of technological advancements influencing social behaviors, thus making it ungeneralizable (Santos & Goncalves, 2021). In addition, not every individual passes through this funnel in the exact sequential manner (Bell, 2013, Stankevich, 2017). Other factors such as brand awareness and brand loyalty, culture, religiosity, and impulsive buying behaviors have been omitted from previous models.

In the connectivity era, the path differs from the traditional model, as consumers have evolved and spend most of their time in a digital space, gathering information on products. The consumer path is not linear anymore and differs by product category, purchasing situations, and is influenced by technology. Consumers in the digital era communicate through various channels, which have molded the way in which they communicate and socialize (Santos & Goncalves, 2021).

The new consumer path is believed to be spiral, as shown in Figure 9, and suggests that the consumer goes through the following stages: *aware, appeal, ask, act,* and *advocate*-while being affected by *outer*, *other*, and *own* influences (Kotler, Kartajaya & Setiawan, 2017, p.68).

*Figure 9. The consumer decision-making process according to the 5 A's*




*Source: Kotler, Kartajaya, & Setiawan (2017, p.68).*

Description of the 5 A's model of consumer decision-making:

- Aware: In this phase, consumers become aware of a brand, either from past experience, marketing communications, or recommendations from others.
- Appeal: Here, consumers metabolize information by creating a shortlist of favorable brands in their memory.
- Ask: In this phase, more information gathering begins, with price comparisons, trying out products at stores, obtaining advice from close circles.
- Act: In this stage, the consumer purchases a product, tests it, and gives satisfaction feedback.
- Advocate: As a consumer uses a product more frequently, they become loyal to a brand, and possibly recommend the brand to others.

Factors affecting the consumer decisions in the above model:

- Outer: These are external factors such as ads, marketing communication, and salesforce.
- Other: Opinions of close social circles, such as friends and families, and opinions on blogs, forums, and product reviews such as on Google, Yelp, Amazon, etc.
- Own: these are past experiences, judgments and evaluations are created of brands in the minds of consumers.

Other factors influencing the new consumer path:

- Level of involvement: How much time consumers spend in each phase can depend on the industry category as well as the perceived importance of the category. More time is

spent on high involvement products, which demand a higher financial sacrifice than with lower-cost goods (Kotler, Kartajaya, & Setiawan, 2017, p.68).

- The level of experience and knowledge also influences the consumer decision path. Consumers who purchase a product for the first time will normally pass through all five phases. An experienced consumer will skip aware and appeal, and potentially even switch brands. Their purchasing journey is much more influenced by outer influences than other and own (Kotler, Kartajaya, & Setiawan, 2017, p.68).
- Consumer satisfaction is the core of the advocacy phase, as this leads a consumer to make repeated purchases and favorable word-of-mouth publicity, beneficial to any brand. It is also the stage where, from experiences, consumers develop positive perceptions of product attributes in their memory. The manner in which brands can achieve greater consumer satisfaction is with intriguing marketing communications, pricing, branding, and product attributes. These factors affect their perception process when evaluating the quality of products, which clearly narrows or extends the time spent in the decision-making process (Rajagopal & Castano, 2015).
- Consumer Perception. Solomon, Bamossy, Askergard, and Hogg (2006, p. 63) defined perception as "the process by which external stimuli is selected, organized and interpreted": Perceptions are evoked by certain stimuli, such as sensory receptors. These include consumers' experiences with regard to their five senses: sight, sound, smell, taste, and texture. These sensory characteristics lead to a consumer designing a perceptual map of the product category in their heads. It is within this phase they memorize a shortlist of desired brands, which they use to compare product attributes before their purchases.
- Risk perception. Consumers also make choices based on the level of risk associated with the product they are purchasing. One factor associated with risk perception is related to income and product safety. For example, food is a credence good. Safety and the level of trust affect how consumers purchase food. Because they cannot assess the quality before purchasing, they have to rely on brand reputation and product labels to minimize their risk of purchasing harmful or lower quality products (Rubio, Oubiña & Villaseñor, 2014). The consequence of these concerns has led consumers to spend more time reading information on food labels (Graham & Jeffery, 2012). In addition, more attention has been given to locally produced goods, as there is a greater oversight over the production, as opposed to goods produced internationally (Saito, 2009, p. 65). In some cases, family norms can influence an individual's perceived risk. It was found that in cases of food safety concerns, families were motivated to spread the concern amongst their friends and families. Food safety events would mass-trigger immediate distrust on brands, and consumers would consequently discontinue purchasing their products, as well as convince close relatives and friends to follow in the same pattern (Saito, 2009, p. 83).

More recent studies have suggested that the consumer decision-making process is even more complex in an online setting. Kim, Jiang, and Bruce (2020) have proposed that consumers, when purchasing online, pass through three latent conceptual stages, such as learn, feel, and

do. All three stages have a synergetic relationship, as each stage can influence another stage at a later time. They highlighted that the learn phase is very important for purchasing complex products, and brands should leverage this by providing educational information on labels or their social pages.

A common dimension in a consumer decision-making process, still today, is the evaluation of alternatives phase. In this process, the consumer compares the shortlisted brands, dependent on product criteria. Determinant attributes are used in the process. The choice of attributes is influenced by procedural learning, which is composed of cognitive steps such as identification of important attributes and remembering how brands differ by these attributes (Solomon, Bamossy, Askergard, & Hogg, 2006, p. 277).

The following chapter will pay more detailed attention to evaluation criteria when choosing wine in a retail setting. It will also introduce the available wine attributes; which consumers are exposed to when they are purchasing wine

Consumer behavior in wine has become a discipline of its own and has developed substantially over the last two decades. However, wine is a complex good, as it can be considered a luxury good, fast-mover good, or a collector's item (Lockshin & Corsi, 2012). Although there is some common knowledge attached to quality judgments for the quality of wine brands, as consumers cannot directly assess the quality of wines, they rely on risk-reducing strategies to help them in their purchases. These strategies include (Atkin & Thach, 2012):

- purchasing the same brand,
- using price as a cue for quality,
- getting assistance from wine sellers,
- getting recommendations from friends and family,
- gaining more wine knowledge,
- and using labeling information and packaging to assess wine quality.

Social benefits have been found as a prominent factor influencing consumption. A US study on risk perception amongst two demographic cohorts found inconsistencies in how each group distributed risk according to the level of social benefit involved. For example, millennials (Gen Y) emphasized that their wine choices impacted others in social gatherings, whereas older consumers' choices did not (Atkin & Tach, 2012).

However, many factors can inhibit purchasing intention, even if a consumer has already decided on their final choice. It has been found that past purchasing behavior made better predictions of future purchases. Subjective norms positively affect how consumers make their product choices. These norms reflect how sometimes other individuals' beliefs have a stronger importance than our individual preferences (Solomon, Bamossy, Askergard, & Hogg, 2006).

Values are another factor that influence purchasing behavior. Nowadays, people have become more health-conscious and spend more time evaluating food and beverage products. Thus, the quality of production and transparency have become part of the value system for many consumers. These values are formulated by a set of beliefs from one's family, environment, personal experiences and can be different for two individuals belonging to the same interest group. For example, two individuals might be vegetarians and have different motives for choosing to become vegetarian (health benefits vs. animal activism) (Solomon, Bamossy, Askergard, & Hogg, 2006). Health consciousness has been found to influence wine consumption in recent studies. Consumers, especially women, looked at health warnings and caloric count more than men did on average, which deterred them from frequently consuming wine (Annunziata, Pomarici, Vecchio, & Mariani, 2016).

It was common for a long time to classify wine consumers into traditional and non-traditional wine consumers depending on the strength of wine culture from where they originated from. European consumers have lived with wine for millennia, and it has even been a part of literature, culinary culture, tradition, and even national identity. This deeply engrained culture has even led to movements of high ethnocentrism (the act of favoring local to imported products). French and Italian consumers will rarely opt for purchasing foreign wine because of the deeply rooted traditional norms. On the other hand, Asian cultures have lived with their own culinary culture without consuming grape wine, so individuals had to learn this new behavior. Nevertheless, wine drinking in Asia has become increasingly popular in the past decade, and more so amongst the youth. This popularity is driven by globalization, which has intermediated between such consumers and western brands, evoking a sort of need for foreign modernity through the adaptation of wine drinking. Intermediaries such as educational organizations, wine marketers, sommeliers, wine journalists, restaurant and bar managers, and hoteliers have played an essential role in promoting wine culture to these consumers. Thus, consumers from these non-traditional wine-growing environments more often connect wine to countries, such as France or Italy, and tend to purchase brands from these origins to minimize the risk of buying poor quality (Rod, Ellis & Beal, 2012).

Some legislations across different countries have started to promote the quality of wine produced in certain geographical regions. This certification system has been considered a valuable tool for assisting consumers in differentiating quality products and increasing their trust in brands. For example, the EU Commission has put forth the most extensive centralized certification system for product quality based on the origin of production (Commission Implementing Regulation (EU), 2019/34). These certifications are becoming an existential tool for EU producers trying to export into the rest of the world. Moreover, this has created a common ground for consumers to familiarize themselves with the standard and make better judgments.

Brand market penetration has been found to affect brand loyalty more than purchasing frequency (Lockshin & Corsi, 2012). Compared to other products, it has also become evident that wine is not that different in marketing terms and can be marketed as a luxury product

and a fast consumer product. In the past decade, most studies have been conducted in Australia, the USA, Italy, France, and China. Other markets have not been studied well enough. Furthermore, scientific literature has been scarce on wine consumption in Taiwan.

When a consumer is forced to choose a brand in a supermarket, there is a limited number of quality cues available to help them make quality evaluations about brands. How important each quality cue is to consumers in their decision process has been studied extensively. However, there have been many discrepancies in the actual rankings of importance between these wine label cues across cultures. The following chapter will introduce the inconsistencies in consumer behavior of wine across cultures, their perceptions of these cues, and how they influence purchase intentions.

## 3.1 Wine attribute importance

### 3.1.1 Price

As the quality of wine is a fuzzy concept to most consumers, they tend to rely on price to make judgments. The consumer is aware of large discrepancies between prices and assumes that the same is true for the quality of the wine. Price has been considered a significant factor influencing product choices because of the financial sacrifice at stake and a determinant for high quality (Palma, Ortúzara, Rizzia, Guevara, & Casaubon, 2016). Monroe (2011) explained that consumers also make choices based on established reference prices in their minds generated from past purchase experiences. Even though a consumer would favor the brand of interest, their preconceived reference prices would influence the final choice. The reference price can be created from: a) the frequency of previous price changes, b) buyer's expectations of future prices, c) the order of price information, d) advertisement of prices, and e) intensity of price promotion. Considering that price is always a determinant of choice due to the financial sacrifice involved, a consumer will always judge it. So, this cue is not sufficient enough to measure the importance of quality.

High price, in existing food and beverage consumption literature, has been found to still be a better predictor of higher quality of products (Atkin & Thach, 2012). A Chinese study on the perceived quality of milk found that consumers observed low-priced milk products as more inferior in quality to more expensive milk brands, thus leading them to purchase the higher-priced product (Wang, Gao, Heng & Shi, 2019). A study on the effects of price on consumers' expectations of quality of wine among Chinese consumers found that less knowledgeable consumers were the most price-sensitive group and primarily associated high price with higher quality wines than more knowledgeable consumers (Liu & Murphy, 2015).

A qualitative study on wine behavior amongst Taiwanese and Malay consumers found interesting links in how consumers associated these attributes. The price attribute had the strongest connection to financial considerations for Taiwanese respondents. Most of the respondents also relied on price to make judgments of the quality of the wine. Purchasing more expensive wine was considered important, depending on the social setting and the

accompanying individual's social status. In addition, purchasing premium wines was considered more appropriate when dining at a fine restaurant to avoid seeming out of place. Whereas Malay consumers did not consider price highly important when they consumed wine. They drank wine because of its hedonic attributes (Tang & Mirosa, 2016).

### 3.1.2 **Country-of-origin effect**

One factor, which has been widely discussed within the academic community, influencing consumers' choices is the country-of-origin effect (COO). This entails that a consumer perceives a product's quality based on how it is associated with a particular country's image. For example, fashion products made in Italy have a higher perceived value than products made in China (Thakor & Lavack, 2003). More so, how consumers associate an image of a country to the quality of their products has been exhaustively studied on fast consumer products, cars, and appliances in the past literature. However, interesting disparagements and praise have been given to its effects on purchasing intentions and the perception of quality. Juran (1998) argued that the perceived quality of products was influenced by the costs associated with producing a product. Consumers' choices would be based on the notion that the production of higher quality goods would cost more, which is the reason for a premium price. In addition, consumers have rated the quality of production of goods based on the economic wealth of a particular country because countries doing economically well were capable of making higher quality goods. This is related to the ability to purchase better machinery and hire more qualified labor. This has led to the perception that high-priced goods are of better quality. This notion has also, for nearly a century, defined some country-of-origin effects in terms of how consumers associated products made in certain countries.

Verlegh and Steenkamp (1999) argued that the COO had a more substantial impact on the perceived quality of products, but it did not affect attitudes and the likelihood of purchases. Later on, Thakor and Lavack (2003) found that consumers still perceived a product's quality based on how it was associated with a particular country's image. This image has been developed from purchasing products from specific countries in the past, as well as influenced by foreign media, traveling, and pop culture (Jaffe & Nebenzahl, 2006, p. 38). Due to globalization, many companies have fragmented their entire supply chains across the world. This has made the country-of-origin effect as a construct debatable for research purposes, and so forth, has been criticized as not being defined in more detail due to the impact of globalization (Jaffe & Nebenzahl, 2006, p.30).

Chattalas, Kramer, and Takada (2008) found that the country-of-origin effects were greater for purchasing hedonic products, such as wine and perfume, but not with other consumer goods. Samiee, Leonidou, Aykol, Stöttinger, and Christodoulides (2016), in a most recent 50-year meta-analysis, found inconsistencies and even controversies in how the COO has been studied as well as its actual influence on purchasing intentions. They stressed the construct lacked validity. In addition, there has not been enough research conducted on the level of importance it had to consumers. Furthermore, the COO has not been found to qualify

as a determining factor influencing purchases compared to other extrinsic cues available in their study.

*Country-of-origin effects on wine*

As mentioned in the previous chapter by Chattalas, Kramer, and Takada (2008), the country-of-origin effects have been found greater for hedonic products such as wine, especially when assessing wine quality. Even for wine, assessments on the quality can be linked to the image of a country. This has primarily been influenced by traditional (oldest) wine-growing countries such as France, Italy, and Spain. Most of the wine trade over the last century has come from these three regions, and they still produce the highest volumes of wine today (OIV, 2019). These countries have had a long tradition of making wine and have been recognized for their quality production by many influential international institutions and organizations, such as Decanter and OIV. Consequently, this has assisted in their market penetration efforts. Over the years, consumers have been using this cue heuristically to make inferences about wine quality and often choose to purchase wines from these origins because of stronger familiarity.

In viticulture, the term 'origin' presents a specification of vine-growing regions regarding the typical geographical characteristics of the vineyard (terroir) and climate. Both of these attributes influence the sweetness, acidity, and astringency of the wine differently. Consumers could easily make inferences about typical aromas the wine possesses if they knew the characteristics of the terroir of the grape variety. For example, a white grape variety produced in South Africa, which has a warmer climate, will have a fruitier taste than the same grape variety grown in Germany because grapes are exposed to warmer temperatures and sunlight for a prolonged time. These wines will have hints of riper fruit flavors than those grown in colder climates, which can be more tannic or acidic in flavor (WSET Global, 2019). Knowing these characteristics would make consumers rely on this cue more than others generally.

In an experiment in China, Liu and Murphy (2007) asked Chinese respondents to evaluate three bottles of wine, during a dinner at a restaurant in Shanghai, according to the country-of-origin and brand of wine. The purpose of the experiment was to find if there were country-of-origin effects on consumers' wine choices. The study revealed that the image of a country had a significant influence on the perception of the brand quality. The respondents rated French wines as statistically more important than other countries' wines because of prestige, tradition, and links to higher quality. A study on Hong Kong Chinese wine consumers revealed high importance on COO when purchasing wine, followed by grape variety and the producer's reputation (Balestrini & Gamble, 2006). This importance of origin has been greatly linked to the Chinese culture of "giving face," reflecting a person's status in society by the luxury items they possess. This is also why it has been frequently found that Chinese consumers prefer to purchase French wines to show their high status (Chi Man Tang, Tchetchik & Cohen, 2007). Nearly a decade after these studies were conducted, this concept

was tested again by Hu and Baldwin (2018). Their hedonic price model found that the COO was still regarded as the predominant informational cue for assessing the quality of wine in China.

In a cross-cultural experiment on the influence of the country-of-origin on the perceptions of wine quality amongst wine traders, Rodrigues, Rolaz,, Franco-Luesma, Saenz-Navajas, and Behrens (2020) found that when quality was not directly measurable to wine traders, they would rely on the country's image to make assumptions of the wine quality. They studied the country-of-origin associations with words like famous, traditional, red wine, unfamiliar wine region, and lack of notoriety. The respondents came up with different associations for each country. There were four different country categories observed, such as France, Argentina, Brazil, and Switzerland. They revealed that for countries with better positioning in the world wine markets, traders would have stronger linkages of representations to these countries' wines than those with lower market penetration. They regarded French wines as traditional, high quality, and famous for red wine. For unfamiliar wine origins such as Switzerland and Brazil, they would associate the country's image negatively with regard to wine because it lacked the notoriety of a wine-producing country. The findings of their study also presented how the lack of traders' knowledge had an equally strong effect on these perceptions and purchasing decisions. For this reason, there is still a high demand for wines coming from traditional wine-growing regions of Europe (France, Italy, Spain).

The importance consumers place on each quality attribute has been found to vary across cultures. Specifically, Brazilians ranked the producer's reputation with the highest importance, while quality awards were the most important to Australian consumers, and the country-of-origin was not a key determinant for their choices (Goodman, 2009).

A study on millennials from the USA found they placed more importance on the producer's reputation, quality awards, label imagery, and alcohol levels than they did on the country-of-origin to determine wine quality. Older consumers relied more on country-of-origin cues, the vintage, and the growing region to assess quality. When the country-of-origin was presented with other quality cues, it was found to be less important across cultures (Barber, Almanza & Donovan, 2006).

As previous literature suggests, the COO cue is still considered highly important amongst many consumers across cultures today. The largest discrepancies seemed to have occurred amongst different demographic cohorts.

### 3.1.3 Organic production vs non-organic production

It has become increasingly popular to purchase organic products amongst consumers globally. The world production of organic food has increased by 48% since 2015. From 2019 to 2020, the production grew by 13%, which is greater than the growth the year before (Passport, 2020a). The motives behind purchasing organic products have been found to be

generated from the willingness to contribute to a more sustainable environment. Many studies have found that millennials are more environmentally conscious than older age cohorts and are willing to pay a premium for organically produced products (Nassivera, Gallenti, Troiano, Marangon, & Cosmina (2019); Barber, Almanza & Donovan, (2006)).

The demand for organic food in Taiwan has been increasing as well and has been consistently growing by 6% annually for the last five years. Since 2015, the market has grown by 35% (Passport, 2020b). The majority of organic goods are produced in Taiwan due to rigid import laws and the recognition of foreign organic labels. The Organic Agriculture Promotion Act (Article 3, 2018) has been vigilant in influencing their domestic production of sustainable products through budgeting, assistance, and education efforts. The Act, which was reformulated in 2018, appoints strict guidelines for the production and imports of organic goods. Farmers wishing to obtain the national organic certification must pass a test with zero traces of pesticides, chemical fertilization, or GMO's. This has consequently created some barriers to importing organic products. These barriers exist only for nations with whom Taiwan does not have a special organic certification agreement.

The ever-growing demand for organic food has led to the production of organic wines amongst European and American wine producers in recent years. In addition to gaining a more competitive edge in the global markets, these producers have changed their growing practices to improve their soil quality, grapes, and protection of the environment (European Union, 2020).

Organically produced wines in the EU have to undergo strict inspection to be labeled as organic. The EU Commission has set the rules for organic production of wine in the following ways in the Council Regulation, (EC), No. 834/2007:

- It is prohibited to use any pesticides, herbicides, and other artificial chemicals in farming practices.
- During the mixing stages, sorbic acid and desulphurization are prohibited.
- The level of sulfites in organic wine must be lower than their conventional equivalent (depending on the residual sugar content) – but they still can be present.

The EU organic labels can also be obtained from producers outside of the EU, which makes brands certified under this label more competitive and also increases general familiarity amongst consumers. Therefore, consumers with positive attitudes toward European organic products might make easier choices for other organic products if the label is presented to them.

Moreover, organic certification varies between countries, and this has created some skepticism and confusion amongst consumers—some trust domestic certifications more than foreign ones, and vice-versa. Skepticism over the legitimacy over the organic certification of wine has also been debated exhaustively for being unnatural, in the sense that some producers still added sulfur dioxide to wines for preservation and were allowed to be sold as

organic. This unnaturalness was not congruent with how consumers perceived organic production, so they were deterred from purchasing wine under this classification (Staub, Michela, Bucherb & Siegrista, 2020). Price premiums have also been found to deter consumers from purchasing organic products across cultures. In China, Zhang, Zetian, Huang, Wang, and Xu (2018) studied Chinese consumers and their attitudes toward organic food. They found positive attitudes for organic products due to health consciousness and environmental concerns, even though this did not lead to actual purchases due to the premium prices. This has also been the case amongst European consumers in recent reports by European Union (2020). Many consumers in the EU believe it is important to purchase organic products because of their health benefits, as well as support for the environment. However, they believed these products should be more affordable to everyone (European Union, 2020).

Sociodemographic characteristics also influenced these perceptions in general. Age was a dominant factor that led to purchases of organic wine in previous studies. For example, demand for organic wines has become increasingly popular in the USA over recent years, but mostly amongst millennials. This is greatly associated with their pro-environmental upbringing and better knowledge of sustainability practices. Whereas, older consumers had lower trust in organic certifications and did not see any difference in the taste, nor were they willing to pay a premium for organic wine (Atkin & Thack, 2012). Mueller, Lockshin, Saltman, and Blanford (2010) found that the least important attributes for Australian consumers were cellaring advice and environmental labels (Bio, Organic, Biodynamic).

Education also seemed to be an essential factor that influenced attitude toward organic products. In a study on German consumers, education had a significant effect on how consumers perceived organic wine and their decision to purchase it. Those with higher education would more frequently purchase organic wines than consumers with lower education. (Schäufele, Pashkova &Hamm, 2018).

Vicente-Molina, & Fernandez-Sainz, and Izagirre-Olaizola (2013) studied the effect of gender on pro-environmental beliefs in four countries, with different economic developments, such as the USA, Spain, Mexico, and Brazil. They found differences in attitudes toward sustainability and purchasing of organic products across cultures. The most environmentally oriented consumers were from Spain, followed by the US. Brazil and Mexico scored the lowest in this regard. This presented culture as a predominant predictor of pro-environmental behavior. Their key findings presented differences in purchases between men and women. They found that gender was a dominant variable influencing pro-environmental behaviors across all four cultures, with women being more pro-environmental than men.

Marketers have used different marketing strategies to promote their products to men and women over the years. It has been found that female consumers spent more money on higher quality wine than males did on average (Nazan Gunay & Baker, 2011).

There has been a paucity of scientific literature studying the attitudes towards organic wines in Asia to my knowledge. On Google scholar, only three research papers have been published on the topic so far, two from China and one from Japan. Lu, Chi, and Zou (2019) found that Chinese consumers have become more health-conscious in recent years, which has led them to more frequently search for information regarding the health benefits of credence goods, and organic wine is no exception. It has been important for foreign wine brands to educate consumers about their production methods due to this new trend. A key finding in their study was that consuming organic wine was considered a symbol of modernity and uniqueness. In addition, they had positive attitudes toward organic wines because of the health benefits attached to drinking them. Most recently, it was found that trust in foreign organic certifications and quality standards was a predominant factor that influenced Chinese consumers to purchase imported organic wines. In addition, organic wine familiarity greatly influenced purchase intentions amongst these consumers (Chi, Ouyang, Lu, 2020). Japanese consumers, on the other hand, were found to perceive natural wines without additives as inferior. In particular, wine consumers stressed the importance of using additives to actually preserve the wine's quality (Kubota, Sawano & Kono, 2017).

Not much is known today on attitudes and purchase intentions of organic wines in Taiwan, to my knowledge. The most recent article published on attitudes towards organic food was written by Liu, Chen C., and Chen H. (2019), and found that Taiwanese consumers were motivated to purchase organic products mainly due to their health benefits, traceability, and environmental consciousness. Moreover, respondents who were older and had more disposable income were more willing to purchase coffee with sustainable certifications.

### 3.1.4 **Brand name**

The brand name's purpose is to convey information about the products it is selling. How brands distinguish themselves in a plethora of alternatives is a difficult task. The way a brand creates equity stems from creating added value for consumers (Calkins & Tybout, 2019).

The brand reflects the added value to consumers, and the product differentiates the brand from competitors (Kapferer, 2008). Thus, a brand needs to be trustworthy and portray unique qualities to achieve loyal consumers. Implementing adequate branding strategies has become vital for brands to stay competitive and for the purpose of promoting singularity or uniqueness to consumers in a digital landscape (Aaker, 2013).

"Brand equity is the value of a brand, based on the extent to which it has high brand loyalty, name awareness, perceived quality, strong brand associations, and other assets such as patents, trademarks, and channel relationships" (Kotler, Wong, Saundersg & Armstrong, 2005, p. 556).

How is a brand perceived in the eyes of wine consumers today? Most wines, especially from traditional wine-growing regions, such as France and Italy, have promoted their wines with regional specifications of quality for centuries. Consumers have purchased wine from the

regions of Bordeaux or Burgundy, knowing that these regions have produced the best quality of wine, and the name of the producer has not been equally important (Haneeus, 2001). Today, with so many brands to choose from, other elements contribute to the brand's reputation as well, such as the expertise of the winemaker, methods of production, the grape growing region, the heritage of the winery, and the culture of the brand (Loureiro & Cunha, 2017). In addition, the wine production methods significantly influence the taste of the wine and its quality. Therefore, the craftsmanship of the winemaker himself has been seen as the most significant attribute contributing to the excellence of wine (Culbert, Ristic, Ovington, Saliba & Wilkinson, 2017). This attribute has also divided the market into fine and commercial wines.

The fine wine market is much more complex than its counterpart. In terms of the positioning strategy and distribution channels, it differentiates itself from commercial wine by not using extensive commercial outlets for branding. Premium brands are more difficult to access. To establish themselves in the market, they use sales agents and wine experts to promote their wines to restaurants and hotels. By doing so, they are sold at a premium price. More of their marketing is focused on winery presentations at international wine expos, and they rely on expert critique to establish their brands as high quality. The authenticity of premium wines is thus based on heritage or pedigree, stylistic consistency, quality commitments, relationship to place, and production method instead of extensive marketing or branding (Beverland, 2006).

A study in the US found that consumers rated the winemaker's reputation with the highest importance compared to other quality cues when purchasing wine. They repurchased the same brand because of trust and low risk of buying poor quality wines (Perrouty, D'Hauteville & Lockshin, 2006). Trust was seen as a key driver for the increased importance of the winemaker's reputation amongst Chilean consumers in a study by Bianchi (2015).

### 3.1.5 **Quality awards**

Consumers can also assess wine quality when purchasing an unfamiliar brand by relying on quality awards given to certain brands. It has been found that exhibition awards were important cues that helped consumers assess the quality of the wine (Orth & Krška, 2002). In recent years, this has been more accurate for millennials than for older consumers. In a US study, quality awards were ranked as the most important wine attribute which influenced purchases. Consequently, American producers have increased their marketing expenditures in order to obtain more quality awards. Before, only reputable wine institutions were able to award wine producers. Now, any wine expert can have their own award system and medals imprinted on the wine labels. These awards have become so ubiquitous that they now have a negative effect on consumers' purchases. Nevertheless, they are still perceived as an important attribute when determining wine quality before purchases (Neuninger, Mather & Duncan, 2017).

## 3.2 Relationship between wine knowledge and the importance of the producer's reputation

Even though each quality element is regarded as important to consumers, it has been found that the level of product class knowledge indicates how an individual will utilize these quality cues available to them when comparing alternative brands. The theory is based upon the notion that more experienced consumers need less time searching for information because of prior experience and the knowledge of important attributes to infer product quality. Therefore, product knowledge influences the manner in which consumers search for information (Thomas & Pickering, 2003; Kotler, Kartajaya & Setiawan, 2017).

A common consensus on the conceptualization and operationalization of product class knowledge has been defined by *objective* and *subjective* product knowledge (Liu & Murphy, 2015; Perrouty, D'Hauteville & Lockshin, 2006; Ellis, Pitt & Caruana, 2017; Robertson, Ferreira & Botha, 2018). Objective product knowledge represents an individual's actual knowledge about something, usually obtained through an assessment. Respondents have to answer questions correctly to possess high levels of objective knowledge. Whereas subjective knowledge is rather the self-evaluation of each individual's knowledge or how much they believe they know about a product. However, the actual measurement of this construct has been widely debated over the years. Liu and Murphy (2015) studied the effects of objective and subjective wine knowledge on wine choices on Chinese consumers. When testing the respondent's wine knowledge, they found that subjective and objective knowledge did not differ among these consumers. In addition, the majority of the respondents had low levels of subjective and objective wine knowledge. Furthermore, they found that more knowledgeable consumers did not depend on the country-of-origin cue when purchasing wine. These respondents made their choices based on the reputation of the winemaker. Ellis, Pitt, and Caruana (2015) suggested that age and consumption experience contributed to higher objective knowledge amongst consumers in the USA.

Forbes, Cohen, and Dean (2008), for example, found that objective and subjective wine knowledge had a positive relationship. This meant that high self-assessments of wine knowledge were linked to high levels of actual knowledge. Considering these findings, the testing itself, used for their study, had limitations regarding the selection of questions used to test objective wine knowledge. The questions used could be unreliable when testing on different consumers across cultures.

Measuring subjective knowledge has been found to be a better tool in understanding the behavior of wine consumers. This type of self-assessment is based on self-confidence levels and perceptions. Self-confidence influences the score of self-assessment. Those who are more self-confident will score higher on this scale than those who are not. Consequently, this information about consumers has been found more useful when measuring product evaluations and is a higher predictor for purchasing behavior as opposed to objective knowledge (Robertson, Ferreira & Botha, 2018).

A study in the USA by Barber, Ismail, and Dodd (2007), found that novice consumers looked at the appearance and primarily utilized the front label information, which captured the country of origin, grape variety, and the vintage when deciding to purchase wine. Perrouty, D'Hauteville and Lockshin (2006) found that consumer expertise affected the reliance on the regional origin, and non-expert consumers relied on the broad country-specific origin (France, Italy). Expert consumers also placed higher importance on the producer's name than novice consumers did in their study.

Ritchie (2009) studied wine purchasing behavior amongst British consumers and concurred with previous literature findings that more wine knowledgeable consumers seemed to favor the producer's name above other intrinsic cues available than less knowledgeable consumers. Moreover, when purchasing wine as a gift, the producer's name was of the highest importance in combination with the high price. Both attributes are key elements of premium wines.

Past studies suggested that wine knowledge has had an effect on the evaluations of wine quality. Specifically, the more wine knowledge an individual acquires, the more important the producer's reputation will be to them. As there has not been any past literature, which has studied this relationship on Taiwanese consumers so far, this present study will try to fill this gap.

### 3.3 Usage and coherence of wine label information

Consumers are becoming more health-conscious globally and have been found to spend more time analyzing nutritional information, health warnings, and ingredients when purchasing food products (Bandara, De Silva, Maduwanthi & Warunasinghe, 2016; Kümpel Nørgaard & Brunsø, 2009).

Not much is known, however, on how frequently consumers utilize the information found on the wine labels before purchasing or how well they understand it. Wine is a complex product with many characteristics, which can often be intimidating to consumers. The purchasing decision is thus a difficult task for consumers. There is quite an abundance of information provided on the front and back labels of wine, and most of the information is mandated by law, which tends to vary between countries. In Taiwan, for example, the list of all ingredients and health warning signs is mandatory by law (Tobacco and Alcohol Administration Act, Article 2, 2007). Whereas, Slovenian wine producers need to provide the presence of sulfites on the labels, but not the full list of ingredients, nor the health warnings (Pravilnik o označevanju in embalaži vina, Ur. l. RS, št. 37/10 in 8/17).

Health warning signs and nutritional information have been found to influence the perceptions of wine amongst wine consumers in the literature. Annunziata, Pomarici, Vecchio, and Mariani (2016) studied attitudes and knowledge of nutritional information found on wine, as well as analyzed the usage and familiarity of wine label information amongst Italians. They found that respondents frequently read the information provided on

the labels and placed high importance on nutritional information and health warnings. It was also found that 34% of the respondents stated the information on the wine labels was often confusing to understand. Pabst, Corsi, Vecchio, Annunziata, and Mueller Loose (2021) also discovered that nutritional information positively influences purchasing intentions amongst German, Italian, and Australian consumers. However, when an ingredient list of preservatives was included in the experiment, their utilities varied considerably. It was found that only the purchases of Italian consumers were negatively influenced by the information, while these were irrelevant to German and Australian consumers.

Other information, such as sensory characteristics and food pairing advice, has also been found to influence purchase intentions (Muller, Lockshin, Saltman & Blannford, 2010; Lockshin, Mueller, Louviere, Francis & Osidacz, 2009). Conversely, these descriptions are not homogenous and can be confusing to consumers. In an experiment, Mueller, Lockshin, Saltman, and Blanford (2010) studied the effects of different sensory descriptions on a consumer sample's coherence and purchase intentions in Australia.

The sensory descriptions which were tested were:

- Elaborate: “elements of dark chocolate, ripe plums, and fine chalky tannins.”
- Simple: “full-bodied red wine.”

They found that respondents favored the simple description more than the elaborate one and would, on average, be more inclined to purchase it.

A similar study on German-speaking consumers, studying the effect of processing fluency on wine, found that a high level of processing fluency of the wine labels affected consumers’ hedonic taste expectations (Gmuer, Siegrist & Dohle, 2015). Simple descriptions and label design resulted in higher expectations of the wine hedonic characteristics as opposed to complicated descriptions.

Infrequent usage of wine label information has been found primarily amongst less knowledgeable wine consumers than more knowledgeable, as they have a lower understanding of the meanings of each extrinsic quality cue. Experts have been found to place more importance in the vast availability of information found on the back labels as opposed to novices, and also spent more time reading the information found on the labels. Furthermore, consumers made judgments on a combination of information available to them from the wine labels. If this particular combination of information and quality cues was not available to them, they would switch brands (Escandon-Barbosa & Rialp-Criado, 2019).

Until today, there has been a paucity of scientific literature found on the frequency of using wine label information, as well as processing fluency of wine label information in general, and none to this day in Taiwan. Moreover, the previous literature studied primarily Italian, Australian, and German consumers.

## 3.4 Purchasing occasion

In the past, wine has been considered prestigious and drunk amongst elites for only special occasions. Now, various consumers are adopting the culture of drinking wine globally, thus losing some traditions of formal wine drinking in the process. Millennials across cultures have become more similar in their consumption behaviors, and drink wine for pleasure and social interactions, thus, more frequently consuming it on many different occasions, informal and formal (Bonaria Lai, 2019).

In addition, Asian consumers have become more open to innovativeness and started consuming wines from the non-traditional worlds such as Australia, New Zealand, South Africa, and the USA, which has created a more complex consumer (Lockshin & Corsi, 2012). It had become customary to drink wine at a restaurant setting in China or at home with friends in recent years, as opposed to the previous decade, when wine was still considered a drink for elites and only drank on special occasions. However, the purchase criteria related to quality cues when purchasing wine as a gift have been found to vary depending on the consumption occasion.

Ritchie (2009) found that consumers in the UK were more inclined to purchase expensive wines and luxury products as a gift than for their personal consumption. Yu, Sun, Goodman, Chen, and Ma (2009) discovered that the key factors influencing Chinese wine consumers' decisions were: price, prior tasting, origin, and brand name. They valued French wines above other wine-producing countries as they were perceived as higher quality due to their long heritage. When purchasing wine as a gift, Chinese consumers bought more expensive and sought-after French wines because of the country's image. Wine represented a "western-style," "the good life," and being "romantic" to Chinese consumers. They linked these attributes to French culture, so naturally, when purchasing wine as a gift, they would choose French wines because of the congruency with its wine culture.

Consumers have been found to be more psychologically involved in a gift-giving occasion as there is more anxiety attached to the purchase, and consumers intend on making a good impression. The rule of thumb in these highly stressful situations, to these consumers, has been to purchase famous wine brands or expensive wine to minimize the risk of purchasing poor quality. Each attribute is consciously analyzed with respect to the message it may convey. Both of the stated attributes convey value and portray the receiver as important to the gift-giver (Boncinelli, Dominici, Gerini & Marone, 2019).

Another study on Chinese consumers, by Corsi, Cohen, and Lockshin (2017), analyzed consumer wine evaluations on three different consumption occasions. These were: an informal dinner, a special occasion (celebration), and dinner with guests at home. The most important wine attribute when selecting wine for an informal dinner at home was the price (65%), followed by the country-of-origin (16%), with high discrepancies compared to the rest of the observed quality cues (store rating, expert rating, quality awards, grape variety,

closure, and brand label). For a special occasion or dinner with guests, the country-of-origin was the most important attribute, followed by price. In conclusion, consumers used a more complex combination of attributes when evaluating wine for a special occasion or a dinner with guests at home. For example, for dinner with guests, additional attributes such as store ratings and grape variety became more important factors. For a special occasion, the producer's reputation, quality awards, and expert ratings were more important attributes.

Boncinelli, Dominici, Gerini, and Marone (2019) observed the effects of purchasing occasions on the consumption behavior of wine in Italy. The findings presented that when consumers purchased wine as a gift, the main attributes most important to consumers were: producer's name, high price, and organic certification. Furthermore, the origin had no statistically significant importance to these consumers when purchasing wine as a gift. However, when they were only purchasing for personal consumption, the origin cue was significantly more important.

There have been only two studies written on wine consumption behavior in Taiwan to date (Google Scholar). The first was a qualitative study conducted by Tang and Mirosa (2016), who observed the influence of personal values and quality cues on Taiwanese and Malay wine consumers when visiting New Zealand. They asked respondents to indicate the attributes which were most important when purchasing wine in a restaurant. They used a hierarchical value map formed from a mix of laddering and semi-structured interviews. The study found that the Taiwanese consumers rated price as the most important attribute, followed by sensory characteristics (color, sweetness, alcohol levels), and third by wine type (origin) when choosing wine on a special occasion. Furthermore, they stressed the importance of purchasing more expensive wines in a fine restaurant. This study had some limitations, however, as the researchers interviewed Taiwanese tourists visiting New Zealand. Sampling bias could have occurred because the respondents were interviewed in New Zealand and not in Taiwan. Thus, their sample might not be generalizable to the entire population. These respondents could have had more exposure to Western culture, had more disposable income, consumed more wine, which has been found to influence how consumers use quality signals when purchasing wine.

The second study was a quantitative study conducted by Grobelna (2018), who studied the effect of two purchasing occasions on Taiwanese millennials. This was also the first to study this cohort's consumption patterns so far. It was found that millennials in the study relied on the COO cue the most when purchasing wine as a gift, followed by a higher price (Grobelna, 2018). However, COO was not the most important attribute when purchasing wine for home consumption. Other extrinsic cues such as wine sweetness and color were more important in the study. Her study had a limitation, however, as respondents had to trade-off between the COO and attributes like wine color and sweetness. These attributes don't reflect the wine's quality but are rather a taste preference, possibly leading to a lower effect of the COO. When purchasing wine for someone else, it is also more difficult to assess the receiver's taste in wines, and this might have led to a greater effect of the COO on a gift-giving occasion as

opposed to a personal consumption occasion. This present thesis will try to fill the gap to find if they still place higher importance on this quality cue when compared to other extrinsic cues such as price, producer's reputation, quality awards, and organic production.

# 4 EMPIRICAL RESEARCH ON WINE PURCHASING BEHAVIOR AMONGST TAIWANESE MILLENNIALS

The objective of the empirical part of the present thesis is to understand how Taiwanese millennials use wine label cues when evaluating between brands on two different purchasing occasions. These label cues are price, producer, quality awards, organic production, and country-of-origin. Moreover, the survey also aimed to gain insights on their purchasing frequency, most common purchasing location, most desirable country-of-origin, label processing fluency, and subjective wine knowledge.

## 4.1 Hypotheses

The present thesis aimed to study the underlying factors influencing wine purchases of Taiwanese millennials. I used the deductive method to develop six hypotheses. As it was found in the past literature, purchasing occasion, wine knowledge, the importance of wine attributes, and sociodemographic characteristics were the most studied factors influencing wine purchasing behavior across cultures. This had been studied by Castellini and Samoggia (2018), Perrouty, D'Hauteville, and Lockshin (2006), Barber, Almanza, and Donovan (2006), Liu and Murphy (2015), Lockshin, Zidda, and Jordan (2007), Mueller, Lockshin, Saltman, and Blanford (2010), Boncinelli, Dominici, Gerini, and Marone (2019), and Tang and Mirosa (2016).

Consumers are becoming more health-conscious globally. Food and beverage labels, which indicate health warnings, nutritional information, and quality of production, have been found to influence consumers' wine-purchase intentions. (Bandara, De Silva, Maduwanthi, & Warunasinghe, 2016; Kümpel Nørgaard & Brunsø, 2009). An Italian study by Annunziata, Pomarici, Vecchio, and Mariani (2016) found that consumers in the majority frequently utilized health information to assist them in their choices of brands. A study in Australia revealed that the information provided on the labels, such as food pairing advice and sensory characteristics, was informative and often led consumers to make purchases as they had better expectations of the taste of wine (Muller, Lockshin, Saltman & Blannford, 2010). A scarcity of scientific literature exists on how frequently Asian consumers utilize the information on the wine labels or how well they comprehend it. There have not been any such studies in Taiwan to my knowledge today. Thus, I developed the following hypothesis:

**H1: Taiwanese millennials frequently read the information on the wine labels before purchasing wine**

In the previous literature, I found that the information on the wine labels was complicated to understand by many consumers across cultures. Consumers in Italy and Australia struggle

to use them accurately when making their purchases, especially with French wines. Price for these consumers was then the alternative attribute assisting them in their purchases (Mueller, Lockshin, Saltman & Blanford, 2010; Annunziata, Pomarici, Vecchio and Mariani, 2016; Lockshin, Mueller, Louviere, Francis & Osidacz, 2009). For this matter, I developed the following hypothesis:

**H2: Taiwanese millennials find the information on the wine labels complicated to understand**

Product knowledge has been shown to be the predominant factor that influenced the allocation of attribute importance across cultures. Perrouty, D'Hauteville & Lockshin (2006) found that consumers who had more wine knowledge could use a combination of attributes available on the labels to make inferences of the quality of the wine. In contrast, less knowledgeable consumers more frequently relied on heuristic cues such as price and the country-of-origin to make judgments.

According to Liu and Murphy (2015), who studied the effects of objective and subjective wine knowledge on wine choices on Chinese consumers, most respondents had low levels of subjective and objective wine knowledge. Furthermore, they found that more knowledgeable consumers did not depend on the country-of-origin cue when purchasing wine. These respondents made their choices based on the producer's reputation. As the reputation of the producer had been found as an important cue to more knowledgeable consumers, I was interested to find out if there exists a relationship between knowledge and the importance of the producer's reputation amongst millennials in Taiwan with the below hypothesis:

**H3: Wine knowledge has a positive relationship with the importance of the producer's reputation (More knowledgeable consumers will place higher importance on producer's reputation than less knowledgeable consumers)**

Sociodemographic characteristics have also been found to influence the manner in which consumers use available quality cues on the wine labels to compare between alternatives. I was most interested in how gender, in particular, influenced the importance ranking for organically produced wine. Previous studies suggested that women placed more importance on organic production than men did on average (Vicente-Molina, Fernandez-Sainz & Izagirre-Olaizola, 2013). It was also found that female consumers spent more money on higher quality wine than males did on average (Nazan Gunay & Baker, 2011). So far, there has not been any scientific literature conducted to my knowledge on the attitudes toward organic wines in Taiwan. There were only a few studies that have studied Taiwanese consumers' attitudes towards food so far. The finding suggested that consumers in Taiwan have a positive attitude towards organic food products and are willing to purchase them because of the health benefits and higher quality (Liu, Chen, C. & Chen, 2019).

Considering the lack of research in the field on organic wine purchasing behavior in Taiwan, this present thesis will try to fill the gap. I was especially interested in finding if there were any differences in the way men and women rated the importance of organic wine production with the hypothesis below:

**H4: Women will place higher importance on organic production than men**

Based on the literature review, I also found that purchasing occasion was a key factor that influenced the usage of wine attributes. According to Lockshin, Corsi, Cohen, Lee, and Osidacz Williamson (2017), Chinese consumers purchased more expensive wines as a gift, compared to a casual dinner setting. Similar findings were seen in two Taiwanese studies by Tang and Mirosa (2016) and Grobelna (2018), who found that Taiwanese consumers purchased more expensive wines for a gift. In a personal consumption situation, they ranked sensory characteristics of the wine (sweetness, color, alcohol levels), followed by COO as the most important attributes. Boncinelli, Dominici, Gerini, and Marone (2019), when studying Italian wine consumers, on the other hand, found that the most important attributes consumers looked for when purchasing wine for gift were organic production and the producer' name.

To explore the current differences between gift-giving and personal consumption occasions, based on the wine attribute importance ratings, I designed eight sub-hypotheses for the two purchasing occasions:

**a) Personal consumption occasion:**

**H5a**: When purchasing wine for personal consumption, the COO will have higher importance than the producer's reputation,
**H5b**: When purchasing wine for personal consumption, the COO will have higher importance than a high price,
**H5c**: When purchasing wine for personal consumption, the COO will have higher importance than quality awards,
**H5d**: When purchasing wine for personal consumption, the COO will have higher importance than organic production.

**b) Gift- giving occasion:**

**H6a:** When purchasing wine for a gift, a high price will have greater importance than the producer's reputation.
**H6b**: When purchasing wine for a gift, a high price will have greater importance than quality awards.
**H6c**: When purchasing wine for a gift, a high price will have greater importance than organic production.
**H6d**: When purchasing wine for a gift, a high price will have greater importance than COO.

## 4.2 Methodology

Researchers can apply two different research approaches—inductive and deductive. These approaches vary depending on the association between data and theory. The deductive approach is used when the researcher builds their hypotheses according to empirical data from past literature. Whereas, when using the inductive approach, the researcher has incomplete data available and builds a theory based on observations to fill the gap. The method which each researcher can use to test their hypotheses can be done through qualitative or quantitative approaches (Bryman & Bell, 2011, p.11). This present thesis uses the deductive approach and quantitative statistical analysis.

For collecting the data, I used a survey method in the form of a self-administered web questionnaire, which was then published on the survey page site www.1ka.si. I designed this type of survey because of convenience and costs. The disadvantages of using online questionnaires are the need for high internet fluency of the targeted population, which can exclude some individuals from participation. Data from national statistical databases presented high levels of internet fluency amongst the entire population (86.2%) (NDC, 2019, September 30), out of which millennials have the highest percentage rates of internet usability (99.8%) (TWNIC, 2020). In this sense, an online survey was appropriate to reach respondents.

I then analyzed the collected data in Excel and SPSS and deleted all missing data in the process. To test my hypotheses, I had to use non-parametric tests, as most of the data had violated the test for normality. I tested my hypotheses with a One-Sample Wilcoxon Signed Rank test, Man-Whitney, and Kruskal-Wallis test at significance levels equal to or lower than $p$=0.05. If the significance values were larger than $p$=0.05, I did not support the hypotheses. For measuring correlations between variables, the Spearman Rho was used. The correlation coefficient needed to fall between $0<r<1$ to present a positive correlation between the observed variables. The strength of the correlation was measured on the interval below (Schober, Boer & Schwarte,2018):

- .00-.19 very weak
- .20-.39 weak
- .40-.59 moderate
- .60-.79 strong
- .80-1.0 very strong

## 4.3 Sampling

The purpose of the present study was to find the underlying factors influencing wine purchases amongst millennials in Taiwan. The reason for choosing millennials as the target population for the extant study is a result of statistical data supporting their considerable impact on the consumption of goods in Taiwan (TWNIC, 2020). They are also the largest generation group of consumers across cultures. This is the biggest group in the USA and China, as well as in other developing countries, and has the strongest buying power today

(Gapper, 2018). Castellini and Samoggia (2018) studied the preferences of millennials globally when drinking wine. They summarized that they were more inclined to innovativeness than other generation groups and found differences in consumption habits across cultures. Today, 22% out of the total population in Taiwan are millennials (NDC, 2020).

Individuals born between the years 1981 and 1996 are considered millennials (Ting, Lim, Cyril de Run, Koh, & Sahdan, 2018). Thus, I observed this age range as the target population for this extant study. Respondents who were included in the survey had to match the following inclusion criteria to complete the questionnaire:

- are Taiwanese national,
- were born between the years 1981 and 1996,
- they drink wine.

I administered non-probability sampling to reach respondents. This particular sampling method is used when the population being studied is difficult to reach and is costly. There are different types of non-probability sampling. Bryman and Bell (2011, p.190) point out three of the most common types of non-probability sampling: convenience, quota, and snowball sampling (Bryman & Bell, 2011, p.190). When a researcher chooses to use the snowball sampling methods, the survey is first shared with a small group of people whom the researcher knows and asks them to share within their social networks. This method is advantageous when the population is hard to access and is mostly employed because of convenience and financial constraints (Bryman & Bell, 2011, p.192). There are other types of non-probability sampling methods, such as purposive or judgmental sampling. This type of sampling method allows the researcher to select a group of individuals who share the same interests or characteristics and asks them to participate in the study (Robinson, 2014). For this extant study, I used a combination of snowball and purposive sampling methods to reach respondents.

To reach a population of wine consumers, I searched for wine groups on Facebook. The reason for using Facebook as a platform for distribution was the high usage percentage rate amongst millennials in Taiwan (99%) (Statista, 2020c). Wong (2020), for the Euromonitor International wine report, revealed that Taiwanese consumers, in 2019, most frequently used Facebook pages and groups to search for information about the wine. For this reason, I selected a selection of Facebook groups for wine enthusiasts with the highest numbers of followers as distribution channels for the questionnaire. I shared the questionnaire on the following Facebook groups with a short introduction of the purpose of the research project in Chinese Mandarin to Little wine better life (小資男女的紅酒筆記本酒友社團) with 18,100 members, and Travel with wine (跟著葡萄酒去旅行) with 6,300 members. To have full access to participate in discussions within the groups, I needed to be preapproved by the admins.

## 4.4 Questionnaire design and pilot testing

The questionnaire (appendix 2) consisted of 14 questions. The first two questions were if-conditions. Individuals who did not meet the inclusion criteria were immediately dropped out from proceeding. Question three (Q3) asked respondents to access their subjective wine knowledge on a 5-point Likert scale from 1 (I am a novice), 2 (slightly knowledgeable), 3 (knowledgeable),4 (moderately knowledgeable), to 5 (very knowledgeable). Questions four (Q4) and five (Q5) covered purchasing occasion, adopted and modified from Grobelna (2018), and asked respondents to rate the importance of each wine attribute in a given occasion on a 5-point Likert scale from 1 (not important at all), 2 (slightly important), 3 (of moderate importance), 4 (very important) to 5 (extremely important). The two purchasing occasions studied were personal consumption occasions, such as a casual dinner with friends, and a special occasion when purchasing wine as a gift.

Rated wine attributes were as follows:

- the producer's reputation,
- high price,
- quality awards,
- organic production,
- and the country-of-origin(COO).

I adopted question six (Q6) from the study by Annunziata, Pomarici, Veccchio, & Mariani (2016). The question contains two subscales designed to measure the coherence and usage frequency of wine-label information. I used a 5-point Likert scale agreement scale to measure how strongly respondents agreed with each sentence ranging from 1 (strongly disagree) to 5 (strongly agree).

Questions (Q7-Q10) referred to wine consumption behavior and asked respondents about their preferences for country-of-origin, frequency of wine consumption, most frequent place of purchase, and price range for an average bottle of wine.

The last part (Q12-Q14) consisted of demographic questions on gender, age, income, and education. The questionnaire was first written in English and translated into Mandarin Chinese by a Taiwanese national (see appendix 3). It had to be written with traditional Chinese characters, as this is the official written language used in Taiwan.

*Pilot testing*

To obtain some clarity in the questionnaire, I employed a pilot testing stage prior to the online distribution. I asked four of my Taiwanese friends to evaluate it. The test respondents were all subjects between the ages of 26 – 34 (three women and one man). There was some misunderstanding in one of the questions regarding the usage frequency of the information on the wine labels, so the scales were restructured and shortened. After modifications, they

tested it again and confirmed the clarity of the question. It took them approximately 5 minutes to complete 14 questions on average.

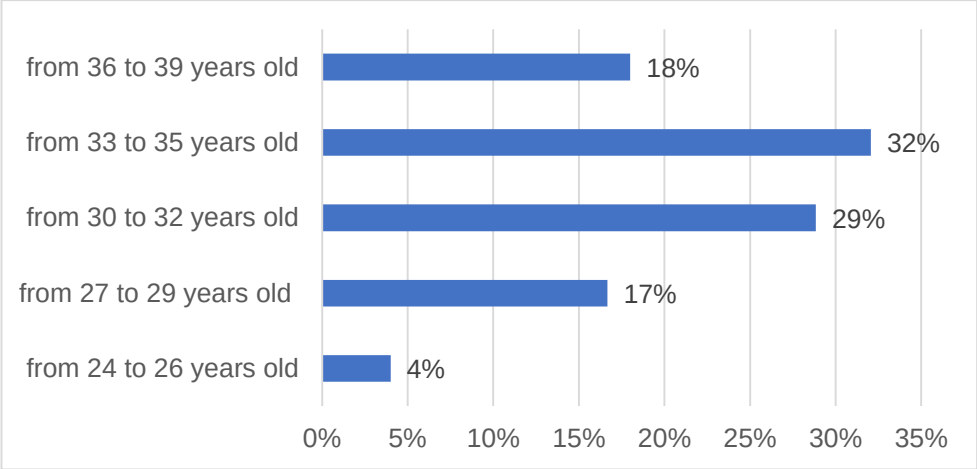
## 4.5 Results of the empirical research

This chapter presents the data analysis created in Excel and SPSS. The questionnaire was online from December 18th until January 18th on the survey platform www.1ka.si. During this time, 507 people entered the introduction page, and 272 (53,6 %) respondents started filling out the survey, out of which 116 did not meet the if-condition. A total of 156 respondents completed the questionnaire.

### 4.5.1 Demographic characteristics of respondents

Amongst the 156 respondents who completed the questionnaire, 32% of the respondents fell into the age group between 33 to 35 years old (Figure 10). This was the largest group of individuals in the study, followed by respondents ages 30 to 32 (29 %), and 18 % of them were 36 to 39 years old. Only 4 % of the respondents were 24 to 26 years old. This presented quite some skewness in distribution amongst the number of respondents. Most individuals who participated in the extant study were over 30 years old.

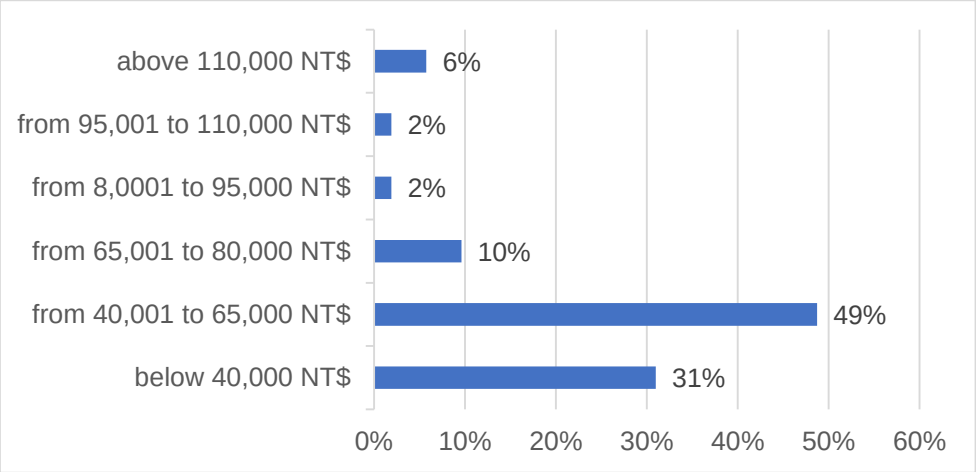
*Figure 10. Age structure of respondents in %*




*Source: Own work.*

The majority of the respondents' average monthly income was between 40,001 and 65,000 NT$ (49%) and below 40,000 NT$ (31%) (Figure 11). This is in line with the average monthly income in Taiwan—42,947 NT$ (1,301 US$) in 2020 (www.*eng.stat.gov.tw)*. The data is shown in Figure 13.

*Figure 11. Average monthly income structure of respondents (in %)*



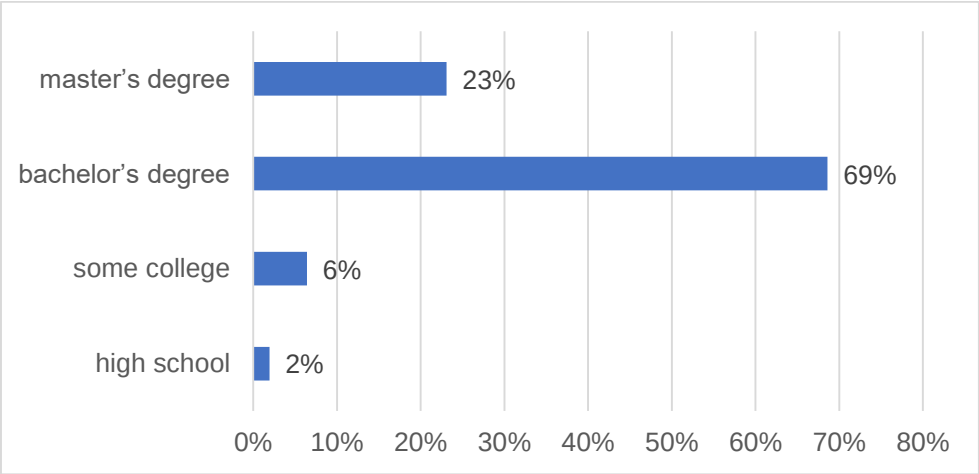

*Source: Own work.*

Out of the respondents surveyed, 68 % were women, and 32 % were men. The distribution has been found quite normal in previous studies, primarily because wine has been a predominantly female beverage. In addition, women have been found to spend more time looking for product information, on labels, online, on social media, from experts, and store ratings than men (Barber, Almanza & Donovan, 2006; Karatsoli & Nathanail, 2020).

Wine forums are considered learning platforms for individuals who wish to learn about wine brands and the sensory characteristics from other peoples' experiences. Observing the engagement and following of private Facebook groups gives some insight into the influence of subjective norms as well as willingness to learn and look for information prior to purchasing.

The majority of the respondents were highly educated. There were 68% stated they had a Bachelor's degree while 23 % held a Master's degree (Figure 12).

*Figure 12. Education structure of respondents*

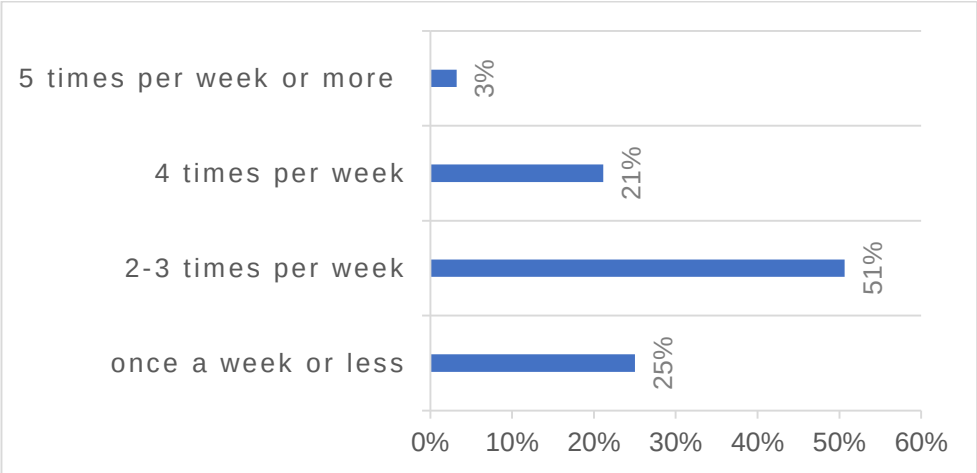



*Source: Own work.*

### 4.5.2 **Wine consumption habits of respondents**

From the data, I found that millennials in Taiwan are frequent wine consumers. The majority of respondents in this extant study said they consumed wine 2 to 3 times per week on average (51%). There were 25 % who stated they infrequently consumed, either once a week or less, and 23 % of the respondents stated they consumed wine more than four times per week (Figure 13).

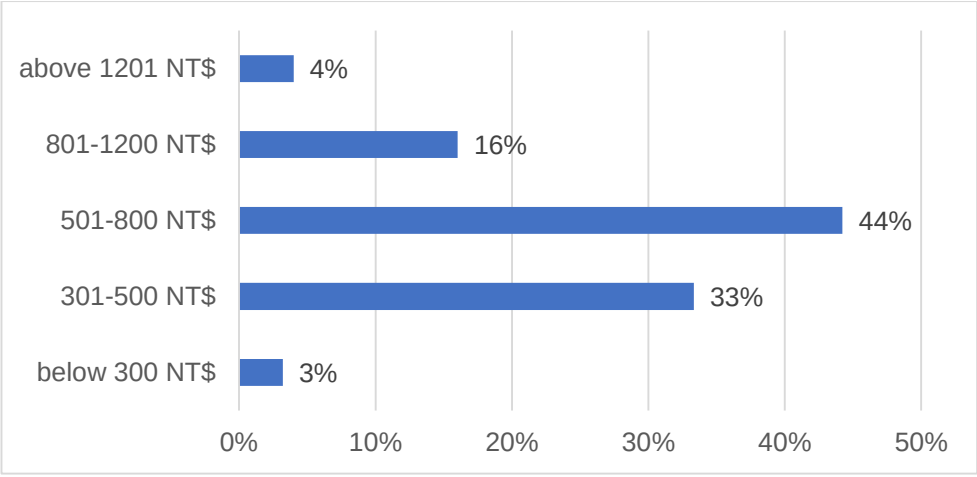
*Figure 13. Consumption frequency (in %)*




*Source: Own work.*

Most of the respondents (44%) purchased wine in the price range between 501- 800 NT$ (17.87 - 28.22 US$), and 33 % out of all the respondents bought wine at the price range between 301 and 500 NT$ (10 - 17.87 US$) (see Figure 14).

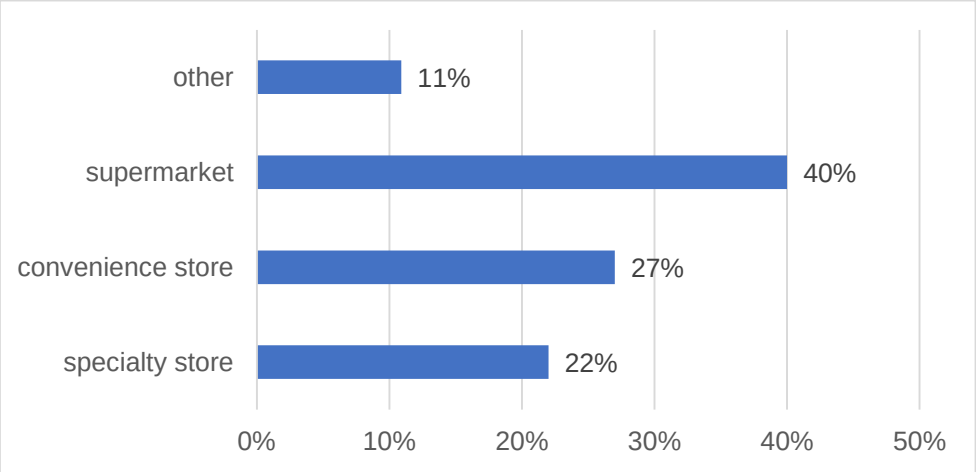
*Figure 14. Most frequent price range for purchasing wine (in %)*




*Source: Own work.*

The majority of the respondents stated they purchased wine at a supermarket (40%) and convenience stores (27 %) (Figure 15). 11% of the respondents said they bought wine elsewhere. A high rate of purchases in a convenience store could be the subsequence of Family Mart and & 711 supplying a wide variety of wines, as well as RTD's, which have become popular in Taiwan, due to the possibility of purchasing smaller volumes (200ml) of wine (www.family.com.tw).

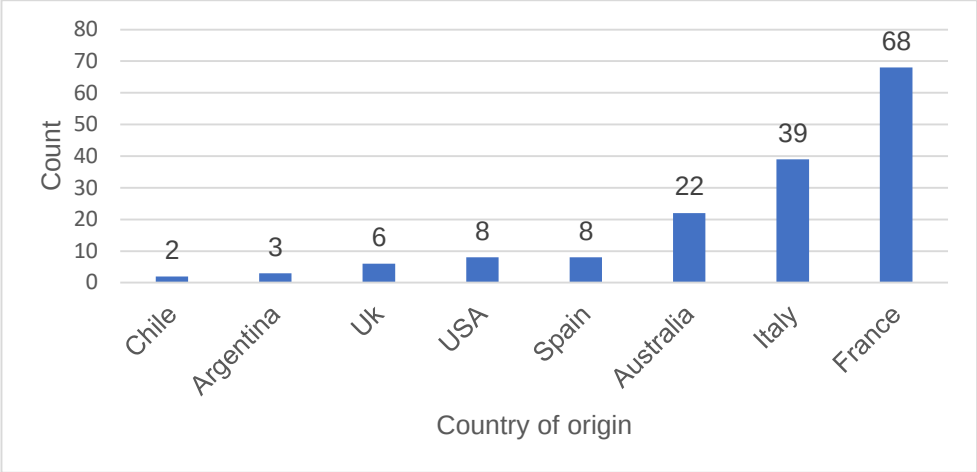
*Figure 15. Most common place of purchase (in %)*




*Source: Own work.*

Out of 156 respondents, 68 (43%) most frequently purchased wines from France, 39 (25%) of the respondents stated they purchased Italian wines, and 22 (14%) from Australia (Figure 16). The fourth favored wine origins were from Spain and the USA. The finding is just slightly different from statistical data conducted by the International Trade Administration (2020). The predominance of French wines is seen in both cases. However, millennials in this study favored Australian and Italian wines over US wines. This finding is also in line with the report from the Australian Trade and Investment Commission (2016), which reported that Australian white grape varieties have become popular amongst the Taiwanese youth.

*Figure 16. Country-of-origin preference*




*Source: Own work.*

### 4.5.3 **Hypotheses testing and results**

#### 4.5.3.1 Test for normality

Before proceeding with statistical testing, I needed to perform a normality test to see if the data was normally distributed. This vital distinction helps the researcher with choosing the correct statistical tests to measure hypotheses. A researcher can then select between parametric testing or nonparametric testing if data is non-normally distributed (Bryman & Bell, 2011, p. 189).

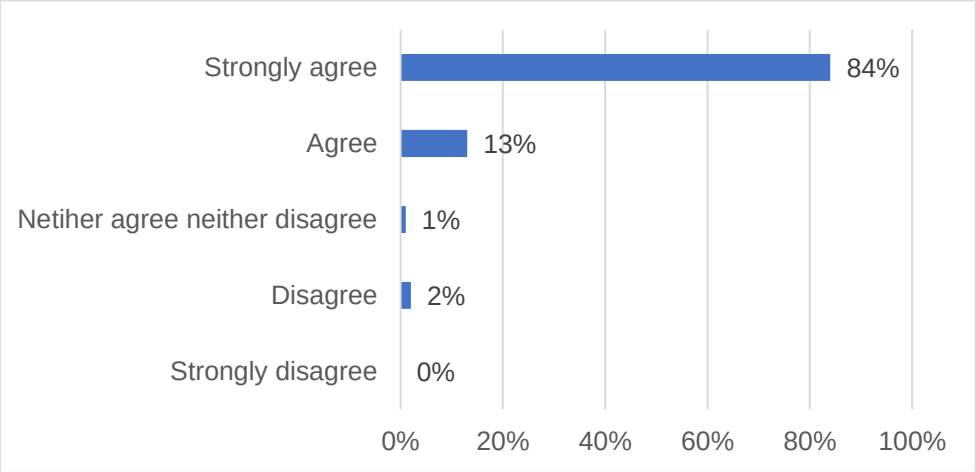
A test of normality was run in SPSS using Kolmogorov-Smirnova and Shapiro-Wilk significance tests (see appendix 9). All of the observed variables had significance values below $p<0.05$, which meant the normality of distribution was violated. Consequently, the observed data was not normally distributed, and nonparametric testing was more appropriate for the continuation of testing my hypotheses.

#### 4.5.3.2 Usage and coherence of the information on the wine labels

**H1 - Taiwanese millennials frequently use wine label information before purchasing**

With question five (appendix 2), I was able to test how often respondents used wine label information before purchases and if they found the wine label information complicated to understand. The respondents gave their answers on a 5-point Likert scale, with the following options: 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), 5 (strongly agree). Their answers are shown in Figure (17). The majority of the respondents (97%) agreed they always read wine label information before purchasing, while 3 % disagreed.

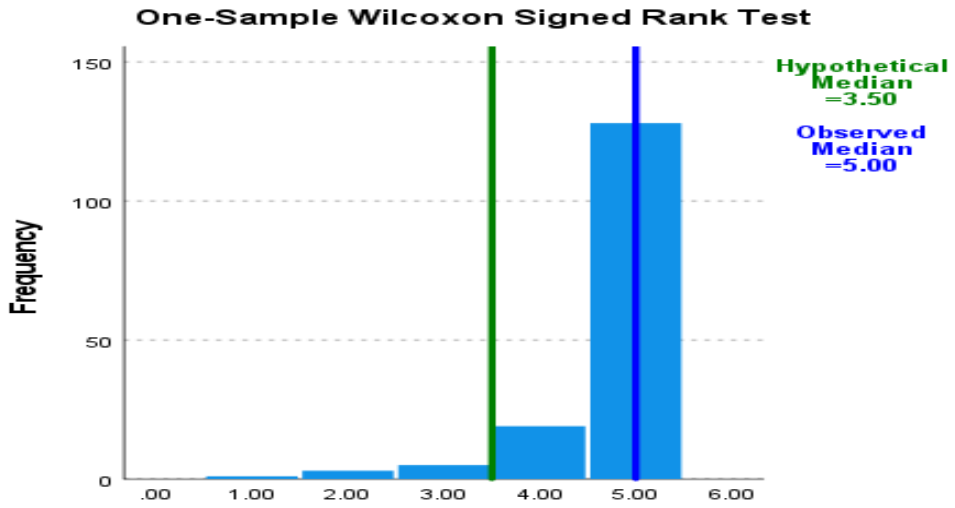
*Figure 17. I always read information on the wine labels before purchasing (in %)*




*Source: Own work*

To test my hypothesis, I used a non-parametric One-Sample Wilcoxon Signed Rank test. As the data was non-normally distributed, it was no longer possible to compare the mean values of the respondents. Thus, I took the observation of median values to interpret the results as they showed more centrality than the mean values. I tested the hypothesis under the condition that the values above the median M=3.5 meant that the respondents frequently used wine label information to compare wines before purchases. Based on the One-Sample Wilcoxon Signed Rank Test (appendix 4), there is enough evidence to suggest the median level (M=5.00) for respondents who always use the wine label information is statistically significantly different from the observed median at M=5>M=3.5, T=11757.5, $z$=10.7, $p$<0.001. Looking at the histogram below (Figure 18), we can concur that respondents strongly agreed with the statement, "I always read the information on the wine labels before purchasing wine." Thus, H1 was accepted with high significance ($p$<0.001).

*Figure 18. One- Sample Wilcoxon Signed Rank Test for "I always read the information on the wine labels before purchasing wine*

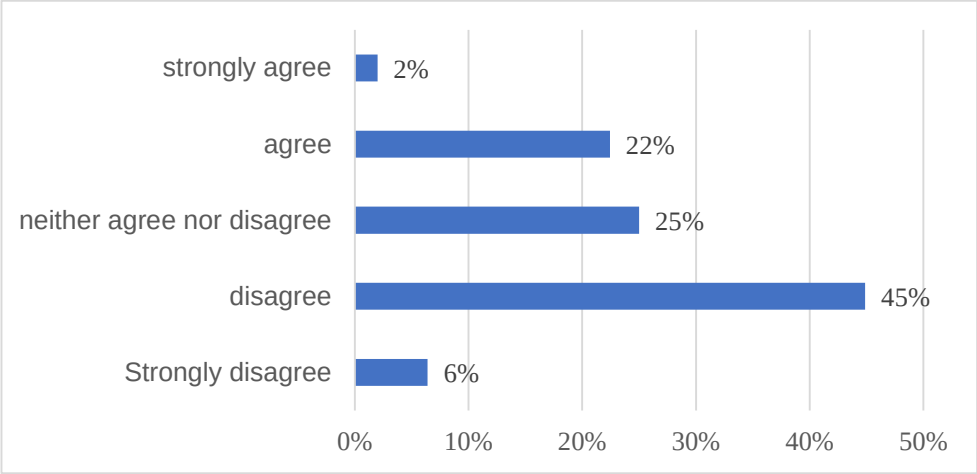


*Source: Own work.*

**H2 - Taiwanese millennials find the information on the wine labels complicated to understand**

Barber, Ismail, and Taylor (2007) found that if consumers had a good understanding of the wine label information presented to them, there was a higher probability those consumers would end up purchasing that particular brand. Italian consumers often relied on price when they found the label information difficult to understand (Annunziata, Pomarici, Vecchio & Mariani, 2016). Thus I created the hypothesis that respondents find the wine label information complicated to understand. Looking at the descriptive statistics for the variable "I find wine label information complicated to understand" shows that most of the respondents (45%) disagreed with this statement, and 6% of the respondents strongly disagreed with the statement. However, 25 % of the respondents had a neutral opinion, and 22 % agreed they found the information complicated to understand (Figure 19). In total, 51% of the respondents stated they did not find the information on the wine labels complicated to understand.

*Figure 19. I find wine label information complicated to understand (in %)*

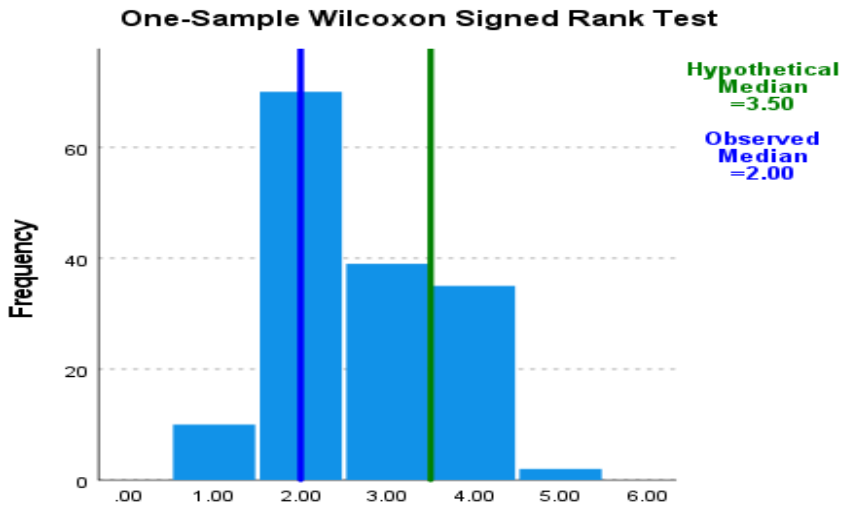



*Source: Own work.*

To test the significance of these results, a One-Sample Wilcoxon Signed Rank Test was also conducted under the null hypothesis equal to the median M= 3.5. A median value above (M>3.5) meant that the respondents found the information on the wine labels complicated to understand. The test results show that there is not enough evidence, at a 5% confidence level, to suggest that the respondents find the information on the wine labels complicated to understand. The Wilcoxon Singed-Rank test indicated that the median rank of the respondents (M=2, N=80) was statistically significantly different than the hypothesized median of $M$=3.5 (N=76), $T$= 1533.50, $z$=8.34, $p$=0.00 (appendix 4). Looking at the histogram below (Figure 20), we can concur that respondents disagreed in the majority with

the statement: I find wine labels complicated to understand. Thus, H2 is not supported at a high significance level ($p$<0.001).

*Figure 20. One-Sample Wilcoxon Signed Rank Test for "I find wine label information complicated to understand"*



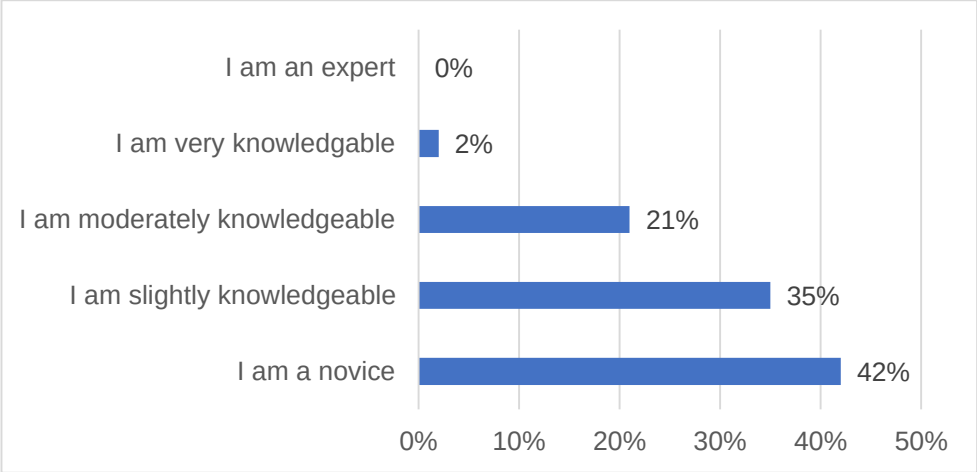

*Source: Own work.*

4.5.3.3 Relationship between wine knowledge and the importance of the producer's reputation

**H3 - Wine knowledge has a positive correlation with the importance of producer's reputation.**

Each respondent had to rate their subjective wine knowledge on a 5-point Likert scale from 1(I am a novice), 2 (I am slightly knowledgeable), 3 (I am moderately knowledgeable), 4 (I am very knowledgeable), to 5 (I am an expert). Figure 21 shows that most of the respondents in this study had little or no wine knowledge (77 %), while 21% of the respondents stated they were moderately knowledgeable, and 2% were very knowledgeable. There were no respondents who rated their knowledge with 'I am an expert'.

*Figure 21. The level of wine knowledge by respondents (in %)*




*Source: Own work.*

A nonparametric correlation test was used to test this hypothesis. The Spearman's rho correlation measures the strength and direction of the rankings of two observed variables. In this case, wine knowledge and the importance of the producer's reputation. Appendix 12 presents Spearman's rho coefficient at .453 and suggests a statistically significant positive monotonic relationship between the two variables at $p<0.001$. This result also suggests there is a moderately strong correlation between the two variables ($.40<r<.59$.) (Schober, Boer, & Schwarte, 2018). Thus, the hypothesis was accepted, and it can be concluded that more knowledgeable consumers will place higher importance on the producer's reputation as opposed to less knowledgeable consumers.

#### 4.5.3.4 Gender and importance of organic wine production

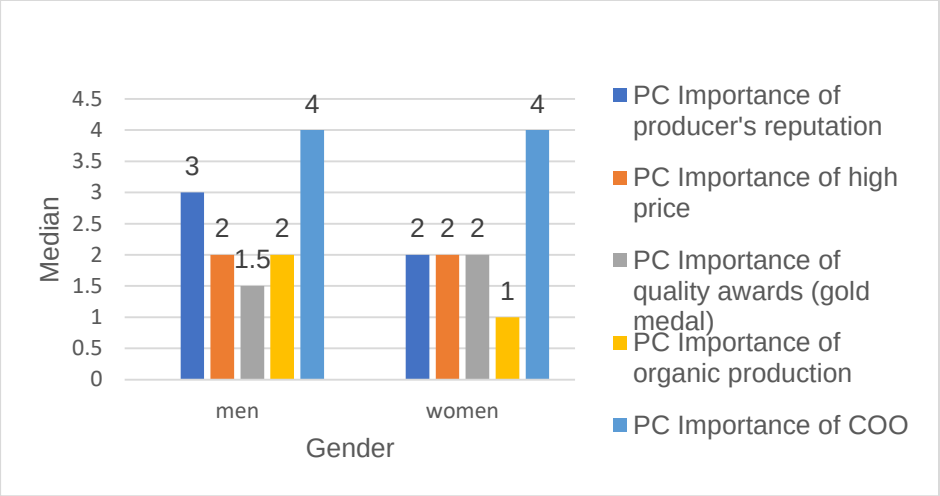
**H4 - Women will place more importance on organic production than men**

Question 4 (Appendix 2) was used to test differences in importance rankings for organic production between men and women. The respondents had to rate the importance of the organic production when purchasing wine compared to other extrinsic attributes on the wine labels, using a 5-point Likert scale, ranging from 1 (not at all important), 2 (slightly important), 3 (moderately important), 4 (very important) to 5 (extremely important).

The Levene's test of homogeneous variances (Appendix 6) at ($p=0.38>p=0.05$) found that the variances between groups were not statistically significantly different, so it was acceptable to proceed with the Many Whitney U test (Appendix 13). The test statistic revealed no statistically significant differences ($p=0.875>p=0.05$) between men and women's importance rankings for organically produced wines at $W=8283$, $z=-0.158$, $p=0.875$. Thus, the hypothesis was not supported at a 5 % significance level. Women do not place more importance on organic production than men.

Then, I was also interested in finding how respondents rated other quality cues by gender (Figure 22). Figure 22 illustrates the median values of the importance of quality cues between men and women. Both men and women rated the importance of quality cues similarly, except for the producer's reputation, which was more important to men than women. Quality awards were slightly more important to women but not important to men. COO was the most important attribute for both men and women when purchasing wine for personal consumption or a casual dinner with friends. The respondents rated the importance of attributes with 1(not at all important), 2 (slightly important), 3 (moderately important), 4 (very important), 5 (extremely important).

*Figure 22. Median values of importance of attributes by gender*




*Source: Own work.*

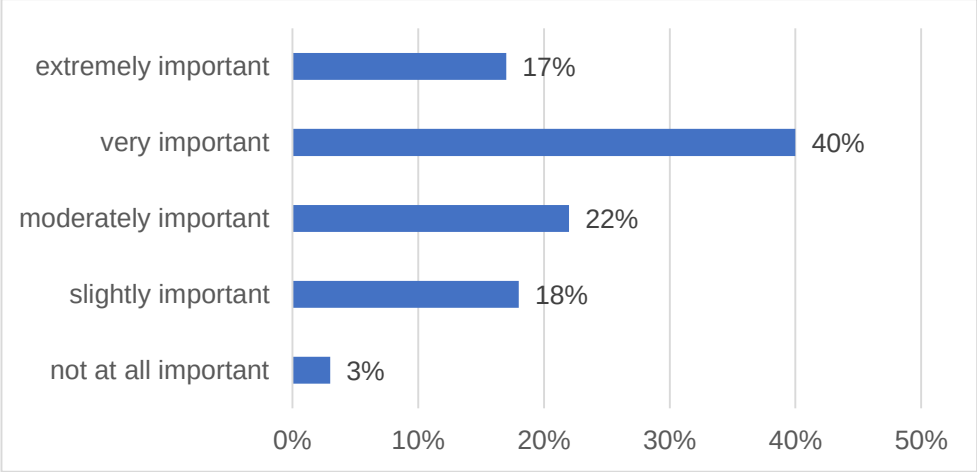
#### 4.5.3.5 The influence of purchasing occasion on wine purchasing

**H5 - When purchasing wine for a personal consumption occasion, millennials will place more importance on COO than H5a) producer's reputation, H5b) high price, H5c) quality awards, and H5d) organic production**

An ANOVA test was the most appropriate test to measure the differences between mean importance rankings to test these hypotheses. However, when the variables violate the normality test for the distribution of the population, a non-parametric test is used to test if there are differences in the medians between two or more experimental groups. In this case, five separate groups were observed to test the hypothesis. When normality of distribution is violated, it has been found that a non-parametric test, such as the Kruskal-Wallis test, has shown more power over an ANOVA test (Van Hecke, 2012). The test observes the median values instead of the means and approximates the differences in ranks to test the power of the statistic.

Respondents were asked to rate the importance of each attribute when purchasing wine for a personal occasion on a 5-point Likert scale with answers ranging from 1 (not at all important), 2 (slightly important), 3 (moderately important), 4 (very important), to 5 (extremely important). Number 3 represented the average importance of the attributes. It has been found that 5 – point Likert scales often fall victim to a 'neutral point' as a dumping ground. If respondents are forced to give their answers while rating from lowest to highest, this is less likely to occur (Chyung, Roberts, Swanson & Hankinson, 2017). Figure 23 shows that 57 % of the respondents found the COO cue very important or extremely important, 18 % found it only slightly important, and 3 % of the respondents did not find it important at all.

*Figure 23. COO importance ranking for personal consumption occasion (in %)*

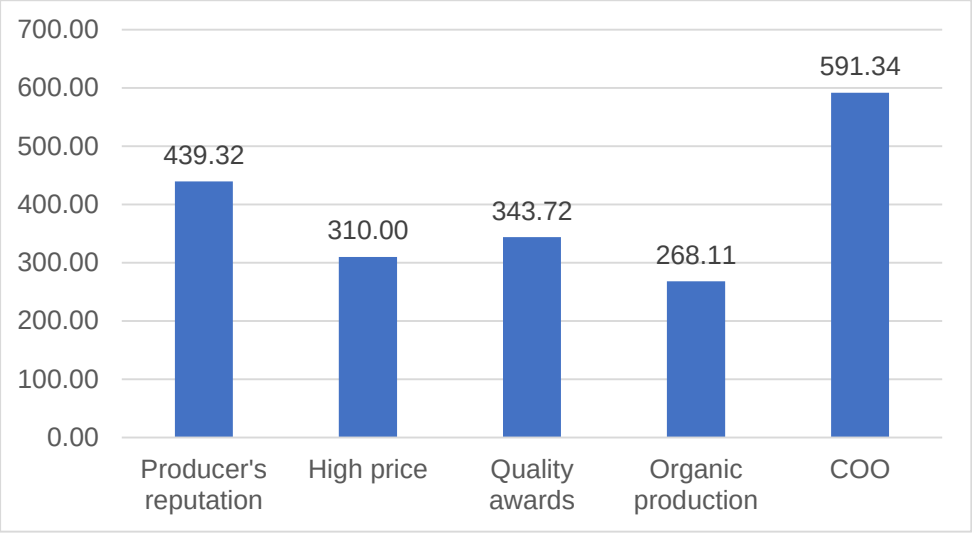



*Source: Own work.*

The Kruskal-Wallis test for mean ranks (Appendix 7) was conducted in SPSS to analyze if COO was more important than other attributes on wine labels when choosing wine for a personal consumption occasion. The test confirmed a statistically significant difference between at least two mean ranks ($H = 219.25$, $p<0.001$).

Figure 24 presents the data of the mean ranks for the personal consumption occasion. The mean rank for COO was 591.34, 439.32 for producer's reputation, 343.72 for quality awards, 310.00 for the high price, and 268.11 for organic production. The highest ranks were given to COO, producer's reputation, and quality awards. This information does not yet provide evidence that there are significant differences between all observed groups. To find, which groups significantly differed, I applied a Post-Hoc test of pairwise comparisons using the Bonferroni correction method (Appendix 8).

*Figure 24. Median ranks for personal consumption occasion*




*Source: Own work.*

The Bonferroni test found statistically significant differences between all five experimental groups ($p<0.001$). Thus, H5a, H5b, H5c, and H5d were accepted at the 1% significance level and can confirm that millennials place higher importance on COO than other attributes found on the wine labels for a personal consumption occasion. This finding is in line with a study on Chinese consumers by Liu and Murphy (2015) and a study on Italian consumers by Boncinelli, Dominici, Gerini, and Marone (2019.) They both found that consumers placed the most importance on COO when purchasing wine in a personal consumption occasion.

**H6 - On a gift-giving occasion, millennials will place higher importance on high price than a) producer's reputation, b) quality awards, c) organic production, and d) COO.**

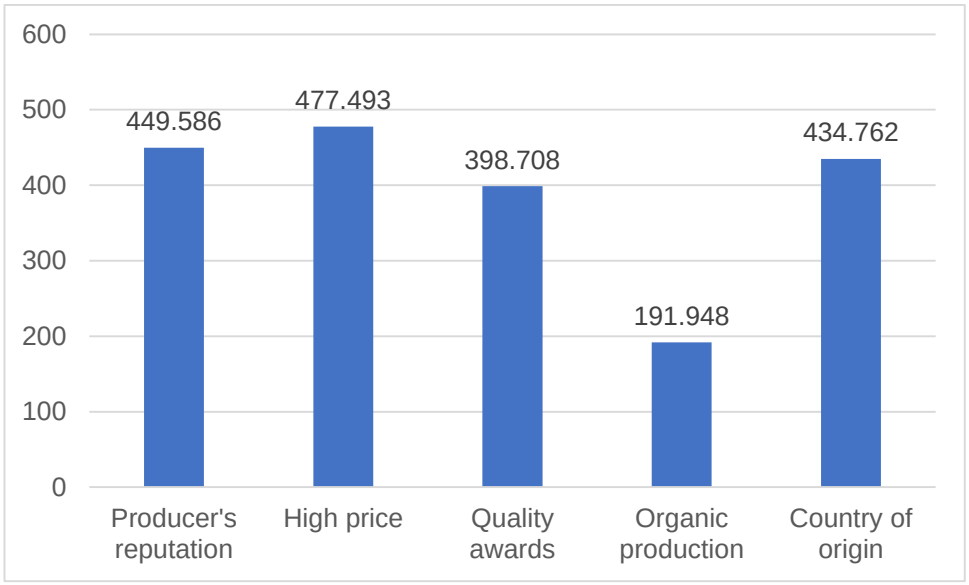
As with the previous point, a Kruskal-Wallis test (Appendix 9) was also conducted to test this hypothesis. The test confirmed that at least two groups differed from each other at the 1 % significance level ($p<0.001$).

A Post-Hoc Pairwise test with a Bonferroni correction method was used (Appendix 10) to find significantly different groups. The hypothesis aimed to test if the high price was more important than the importance of COO, quality awards, organic production, and producer's reputation on a gift-giving occasion.

The Post-Hoc test found significant differences between only high price, organic production, and quality awards at $p<0.001$. The test revealed that there were no statistically significant differences between high price, COO ($p=0.08>p=0.01$), and the producer's reputation ($p=0.26>p=0.01$). Thus, H6a and H6d were not supported with high significance $p<0.001$. It can be concluded that high prices will be only more important than quality awards and organic production when purchasing wine as a gift. Furthermore, this finding suggests that individuals choose a more complex combination of attributes when purchasing wine for a gift. This finding is in line with previous literature by Corsi, Cohen, and Lockshin (2017).

Looking at Figure 25, it is evident that millennials will consider a combination of wine attributes when purchasing wine as a gift. The least important attribute when purchasing wine for a gift was organic production.

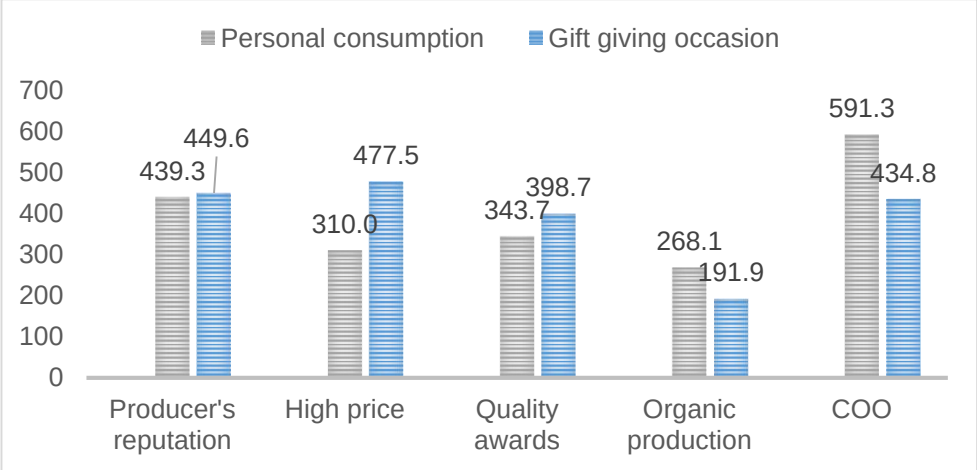
*Figure 25. Median ranks for gift-giving occasion*




*Source: Own work.*

Lastly, the mean ranks were compared between both consumption occasions in Figure 26. Interestingly, when comparing the ranks between the two occasions, high price was considered more important in a gift-giving occasion compared to a personal consumption occasion. Organic production was the least important attribute in both occasions. Although, it was slightly more important for personal consumption than for a gift-giving occasion.

*Figure 26. Median rank comparison of attribute importance between two consumption occasions*




*Source: Own work.*

# 5 KEY FINDINGS AND MARKETING IMPLICATIONS

The purpose of the master's thesis was to examine how Taiwanese millennials utilize wine label elements when purchasing wine on different purchasing occasions, as well as how they process information found on wine labels, the level of knowledge they perceive to have, and how well they understood the wine labels.

Millennials in Taiwan are a highly digitized cohort who spend considerable time on the internet, searching for information, socializing, messaging, and watching videos online. It has been found that Taiwanese consumers tend to use social media in the majority to gain educational material, especially for wine.

## 5.1 Key findings from the market analysis and marketing implications

We can concur that Taiwan is a desirable market for foreign wine producers, considering the findings from the wine market analysis. The most popular social media platforms used by millennials in Taiwan are Facebook and YouTube. Consumers mainly use these platforms for educational purposes as well as socializing with their friends and families, so marketers should utilize these platforms to connect these consumers and really understand their needs and wants. Brands' narratives when promoting wines should be informative, as this type of content gains traction on social media, which consequently brings brands more following. It has been found that the Taiwanese youth spend a considerable amount of time playing mobile games. Marketers can use gamification concepts to increase engagement and sales through their social media platforms as well as their e-commerce pages. Brands need to think digitally in order to stay competitive in Taiwan.

Taiwan's wine market has been growing steadily over the last five years. Demand for fine wines has been gradually increasing in the last five years, and sales for fine wines increased by 9% in 2020 alone. The Taiwan wine market is highly competitive. Taipei city is ranked the third-largest city in the Asia-Pacific region by wine shops per capita, after Hong Kong and Singapore. There is still an opportunity for new wines to be sold in Taiwan as more youth are becoming more knowledgeable and open to innovativeness, thus, willing to experiment with wines from different countries worldwide (Zhou, 2021). The growth of the RTD's market in Taiwan highlights a new trend in wine drinking in Taiwan (Wong, 2020). RTD's allow the consumer to taste more varieties of wine inexpensively, and they are an excellent way for wine producers to penetrate the market.

Consumers purchase wine mostly in the off-trade market (ex. supermarkets, convenience stores, specialty stores). This growth has resulted from supermarkets enlarging their supplies of foreign wines in recent years. During the COVID pandemic, consumers avoided crowded spaces, and as a result, sales of the on-trade market dropped (restaurants, bars). It was also found that Taiwanese consumers have become more health-conscious, which has affected sales by volume; however, expenditures for fine wines have increased in recent years. This

marks another opportunity for winemakers around the world to enter the market with their premium brands and focus on promoting quality in their marketing campaigns.

## 5.2 Key findings from the empirical research and marketing implications

The final part of the thesis was an empirical analysis, for which I developed six hypotheses based on the literature review. I found that key influencing factors when purchasing wine were:

- wine knowledge,
- purchasing occasion,
- quality cues on the wine labels,
- the usage frequency and coherence of the presented label information.

A closed-ended self-administered questionnaire was distributed to two Facebook wine groups and shared amongst Taiwanese friends on my personal profile. The empirical analysis results revealed that respondents consumed wine 2 – 3 times per week on average. The majority of the respondents were female (68%), 33-35 years old, and were highly educated. Their average monthly income was between 40,000 NT$ - 65,000 NT$ (1400 -2300 US$). The sample purchased wine mostly in supermarkets and spent on average of 501- 800 NT$ (17-28 US$) for a bottle of wine. French wines were considered the most popular wines, followed by Italian and Australian wines. In this study, millennials preferred Australian to American wines, which were the second most purchased wines in Taiwan, according to the International Trade Administration (2020) data. This preference could mean that millennials are becoming more innovative and experimenting with New World wines. In addition, it presents a great opportunity for unknown wine countries to present their wines to these consumers.

*The usage frequency and coherence of the presented label information*

I found that the majority of the respondents always read the wine label information before their purchases, leading to accepting H1(Taiwanese millennials frequently use wine label information before purchasing). This information is useful to marketers as it provides evidence of the importance of the label's information but does not provide information about the specific descriptions they read. Through focus groups and experiments, marketers should learn what specific wine information these consumers find helpful to create their labels in a consumer-centric way. As previous research highlighted, consumers often struggled to find the meaning of the information found on the wine's front and back labels. I found that most respondents disagreed with this statement (51%). However, 23 % of the respondents found the labels complicated to understand, and 25 % stated they neither agreed nor disagreed with the statement. Even though the hypothesis was not supported at high significance ($p<0.001$), the neutral opinions might lean more towards an agreement level than a disagreement level, as respondents might not want to expose their shortcomings. Marketers should conduct more

experiments to identify the core of ambiguity and make corrections that will not intimidate consumers.

*Wine knowledge*

Millennials in the study had little or no wine knowledge in the majority (77%). There was a positive correlation between wine knowledge and the importance of the producer's reputation, leading to accepting H3 (consumers will place more importance on the producers' reputation with more wine knowledge). Less knowledgeable respondents in this study relied more on the COO to make judgments. These findings indicate that marketers can segment the wine market by consumers' levels of wine knowledge and should use different communication and product placement strategies to reach these consumers.

*Gender and organic production importance*

When testing hypothesis 4, it was found that women do not place higher importance on organic production than men. Thus, H4 was not supported with high significance. Looking at how all of the respondents ranked this attribute, it was also insignificant when having to trade-off between other quality cues. Marketers thus, do not need to create different marketing promotions for each gender segment, and do not need to emphasize this method of production, according to this sample.

*Purchasing occasion*

Purchasing occasion influenced the way millennials utilized different quality cues when purchasing wine. Respondents rated the COO as the most important attribute when purchasing wine for personal consumption or a casual dinner with friends, but the sample rated high price, COO, and the producer's reputation with the highest importance in a gift-giving occasion. Knowing that consumers use different attributes to rate the quality of wines for different occasions, retailers in Taiwan can use this information to offer better recommendations to customers in offline and e-commerce shops. Wine marketers can also create innovative campaigns online on specific holidays to promote their premium brands.

## 5.3 **Limitations**

The largest limitation of the empirical part of my thesis is using purposive sampling. Since I used purposive sampling, a type of non-probability sampling, to reach respondents, not every individual was chosen at random with the method used. This limits generalizability and representativeness to the population. Purposive sampling is also based on the researcher's subjective judgments, which presents a higher researcher bias than with other sampling methods (Bryman & Bell, 2011, p).

There is also some limitation in the scale design in the questionnaire. Only 5-point Likert scales were used to test my hypotheses in order to minimize the response time of participants.

A 7-point or 10-point Likert scale has been found to bring more genuine responses when studying consumer behavior. Likert scales, in general, can often fall victim to biased responses. Respondents tend to give more socially desirable answers or use the midpoint or neutral point as a dumping ground when responding (Chyung, Roberts, Swanson & Hankinson, 2017).

As I tested all of the hypotheses with nonparametric tests, the power of the results is not as strong as it would have been with parametric tests (Rajaretnam, 2016, p. 173). To measure the construct "wine knowledge," respondents had to evaluate their wine knowledge subjectively. This could have presented some biased answers. Respondents could have been overconfident or not as confident in their assessment, so this masks the actual knowledge they possess.

## CONCLUSION

Taiwan is a promising market for selling wines, especially fine wines. Compared to other Asian countries, it ranks as the third-largest market with wine specialty shops per capita. Demand for wine has been exponentially increasing over the last five years. Millennials in Taiwan are a highly digitized cohort who frequently shop online. They mostly use social media platforms, such as Facebook and YouTube, for entertainment and educational purposes. Wine groups on Facebook receive a large following. Taiwan Wine Academy's Facebook group has over 100,000 followers alone, presenting a significant interest in wine education.

The quantitative part of this thesis aimed to examine how wine knowledge, purchasing occasion, wine label information coherence, gender, and five wine label attributes influenced wine purchases of Taiwanese millennials. The findings revealed that purchasing occasion and wine knowledge were the most significant factors influencing the selection of wine and the importance of wine attributes. Millennials in this study placed the highest importance on the COO. This ranking is attributed to their low level of subjective wine knowledge (77%), which has also been found in previous research as more important to less knowledgeable consumers (Grobelna, 2018; Liu and Murphy, 2015; Perrouty, D'Hauteville & Lockshin, 2006). In this study, there was a positive relationship between wine knowledge and the producer's reputation, which means that consumers with higher levels of wine knowledge will not place more importance on COO when purchasing wine but rather on the producer's reputation. These findings contribute significantly to the scarce literature on wine consumption in Taiwan. Future research could study how novice and expert wine consumers differ according to their age, gender, frequency of consumption, place of purchase, and expenditures.

The most important wine attributes to millennials in this study were COO, high price, and the producer's reputation when purchasing wine as a gift. Compared to these three attributes, quality awards and organic production were not as important in their decision-making

process. As for personal consumption, the COO was the most important attribute to millennials. In addition, French wines were considered the most preferred wines to the sample, followed by Italian, Australian, and Spanish wines. This data differs from the consumption behavior statistics of consumers in Taiwan, which states that French, American, Italian, and Australian wines are preferred by order ranking.

Most of the millennials in this study stated they frequently read the information provided on the labels with confidence. However, 51 % said they understood the information on the labels with certainty, while the rest either did not or chose not to provide their answers. As this extant thesis is the first to study this topic in Taiwan, more research would be needed to understand what information causes ambiguity amongst these consumers. Gender also had no significant influence on how millennials ranked wine attributes.

Lastly, organic production did not seem to have any significant importance to the studied sample compared to other extrinsic cues in the study. However, it is essential to highlight that sales of organic produce in Taiwan have sharply increased in the last five years, as consumers are becoming more health-conscious and are concerned about the environment. Moreover, the survey only asked the respondents to rate the importance of five wine attributes and nothing about their experience of drinking organic wines. Not much is known about the consumption of organic wines in Taiwan today. Drinking organic wines across Europe and the US has become a big trend, and Taiwan already imports many of their products, including wines. Therefore, it would be interesting to see more research in the future on attitudes and motives for purchasing organic wines in Taiwan to fill the gap.

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# APPENDICES

## Appendix 1. Abstract of thesis in Slovenian

Namen magistrskega dela je bil najti osnovne dejavnike, ki so vplivali na nakup vina tajvanskih milenijcev. Prvi del magistrske naloge se osredotoča na industrijsko analizo vina v Tajvanu, ki prispeva k širšemu razumenvanju ključnih gonilnikov potrošnje vina.

V zadnjih petih letih, tajvanski vinski trg vztrajno raste, kar kaže na veliko povpraševanje po vinih. Količinska poraba se postopoma povečuje, vendar ne bistveno v primerjavi z izdatki. To je posledica povečanega povpraševanja po finih vinih, ki se je samo v letu 2020 povečalo za 9%. Tajvanski trg z vini je zelo konkurenčen. Glavno mesto Tajpej je, za Hongkong-om in Singapur-jem, uvrščen kot tretje največje mesto po številu specializiranih trgovin na prebivalca v azijsko-pacifiški regiji. Obstaja tudi večja priložnost za prodajo še nepoznanih vin v Tajvanu, saj postaja več mladih bolj izobraženih glede vin in so pripravljeni eksperimentirati z vini iz različnih držav.

V drugem delu prikažem socio-demografske značilnosti tajvanskega kupca.Tretji in četrti del naloge zajemata pregled literature in empirična analiza, za katero sem na podlagi pregleda literature razvila šest hipotez. Ugotovljeno je bilo, da so bili ključni dejavniki, ki vplivajo na nakup vina: znanje o vinu, nakupna priložnost, atributi o kakovosti na etiketah vina, ter pogostost uporabe in skladnost predstavljenih informacij na etiketah. Bila je izvedena kvantitativan raizkava s pomočjo spletnega vprašalnika zaprtega tipa. Rezultati empirične analize so pokazali, da so anketiranci v povprečju uživali vino 2-3 krat na teden. Večina respondentov je bilo ženskih (68%), starih od 33 do 35 let, ter visoko izobraženih. Njihov povprečni mesečni dohodek je znašal med 40.000 NT$ - 65.000 NT$ (1450 - 2300 US$). Respondenti so vino kupovali večinoma v supermarketih, kjer so za steklenico vina porabili v povprečju 501–800 NT$ (17 – 28 $). Francoska vina so veljala za najbolj priljubljena vina, sledila so italijanska in avstralska vina. Milenijci, v analizi, so se razlikovali od širše populacije potrošnikov iz druge raziskave v Tajvanu, ki je pokazala, da potrošniki bolj pogosto kupujejo ameriška vina kot avstralska.

Pri testiranju hipotez, sem ugotovila, da večina anketirancev pred nakupom vedno pregleduje podatke na etiketah vina. Ker so prejšnje raziskave poudarjale, da imajo potrošniki pogosto težave pri intepretiranju pomena informacij prikazanih na etiketah vin, sem želela ugotoviti kakšna stališča imajo do njih tajvanski milenijci. Iz raziskave, sem ugotovila, da se večina anketirancev ne strinja z izjavo (51%) in 23% anketirancem se je zdelo, da so informacije zapletene za razumeti, 25% pa jih je navedlo, da se niti ne strinjajo niti strinjajo z izjavo.

Milenijci iz raziskave so imeli v večini malo ali nič znanja o vinu (77%). Ugotovitev Spearmanove korelacije je pokazala pozitivno korelacijo s srednjo jakostjo, kar kaže na to, da bodo milenijci v Tajvanu z večjim znanjem o vinu večji pomem pripisovali ugledu proizvajalca (r = 0,43).

Spol ni konkretno vplival na pomen, ki so ga anketiranci pripisovali opazovanim atributom na etiketah. Ugotovljeno je bilo, da je pri večini organska pridelava vin nepomembena, ko

so morali atribut primerjati z ostalimi oznakami kakovosti, kot so ugled proizvajalca, država porekla, ter višja cena. Tako je nakupna priložnost močno vplivala na določitev pomena kakovostnih oznak. Pri nakupu vina za osebno porabo ali večerjo s prijatelji je bil najpomembnejši atribut država porekla. Pri nakupu vina za darilo, so anketiranci uporabili kombinacijo atributov, ki so se jim zdeli pomembni pri nakupih. Tako so bili najpomembnejši atributi: visoka cena, ugled proizvajalca, in država porekla.

**Appendix 2. Questionnaire in English**

Hi!

My name is Andreja Osterc, and I am a master's student at the Faculty of Economics in Ljubljana, Slovenia. For my master's degree thesis, I am studying the factors affecting wine purchases in Taiwan, with a special focus on the usage of wine label information when purchasing wine.

The participation in the survey is anonymous, and there are no wrong answers to the questions. The data collected will be confidential and used only for the purpose of this research. It should only take up to 5 minutes to complete this questionnaire. Your participation in this study will be most helpful for the completion of my studies.

I greatly appreciate your time and efforts to complete this survey. Thank you very much!

Andreja

1. Do you like to drink wine?

Yes/No

If you have answered the questions with yes, you can continue with the survey.

2.Are you a Taiwanese national born between the years from 1981-1996?

Yes / No

If you have answered the above question with yes, you can continue with the survey.

3. How would you describe yourself in terms of your wine knowledge from 1-5 on this scale?

| | 1 (a novice) | 2 (slightly knowledgeable) | 3 (moderately knowledgeable) | 4 (very knowledgeable) | 5 (am an expert) |
|---|---|---|---|---|---|
| I think I am | | | | | |

4. Imagine you are buying wine at a shop for yourself or a casual dinner with friends at your home. There are many brands to choose from. Which brand attributes are important to you in your choice? Please rate the importance of each brand element below from 1(not at all important) to 5 (extremely important).

| | 1 (not at all important) | 2 (slightly important) | 3 (moderately important) | 4 (very important) | 5 (extremely important) |
|---|---|---|---|---|---|
| Producer's reputation | | | | | |
| High price | | | | | |
| Quality awards (gold medal winner) | | | | | |
| Organic production | | | | | |
| Country-of-origin | | | | | |

5. Imagine you are buying wine at a shop as a gift. There are many brands to choose from. Which brand attributes are important to you in your choice? Please rate the importance of each brand element below from 1(not at all important) to 5 (extremely important).

| | 1 (not at all important) | 2 (slightly important) | 3 (moderately important) | 4 (very important) | 5 (extremely important) |
|---|---|---|---|---|---|
| Producer's reputation | | | | | |
| High price | | | | | |
| Quality awards (gold medal winner) | | | | | |
| Organic production | | | | | |
| Country-of-origin | | | | | |

6. What is your level of agreement with the following statements about the use of wine label information? Please rate on a scale from 1 (strongly disagree) to 5 (strongly agree).

| | 1 (strongly disagree) | 2 (disagree) | 3 (neither agree nor disagree) | 4 (agree) | 5 (strongly agree) |
|---|---|---|---|---|---|
| I find the wine label information complicated to understand | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| I always read the information on the wine labels before purchasing wine | | | | | |

7. When purchasing foreign wine, from which country do you prefer drinking wines?

1) USA

2) New Zealand

3) Australia

4) France

5) Germany

6) Italy

7) Spain

8) Chile

9) Argentina

10) Hungary

11) UK

l 2) other

8. How often do you consume wine?

a) once a week or less b) 2-3 times per week c) 4 times per week d) 5 or more e) other

9. Where do you most often purchase wine?

a) specialty store b) convenience store (711/Family mart) c) supermarket d) other

10. In which price range do you most frequently purchase wine?

a) below 300 NTD b) 301 - 500 NTD c) 501 -800 NTD c) 801 - 1200 NTD e) 1201 NTD +

11. What is your gender?

male/ female

12. What is your average monthly income?

a) below 40,000 NT$ b) (40,001 – 65,000 NT$) c) (65,001-80,000 NT$) d) (80,001-95,000 NT$) e) (95,001-110,000 NT$) f) above 110,000 NT$

13. What is your highest obtained education?

a) high school b) some college c) bachelor's degree d) master's degree e) PHD

14. Which age group do you belong to?

a) (24-26) b) (27-29) c) (30-32) d) (33-35) e) (36-39)

Thank you for your time and efforts.

Andreja

**Appendix 3. Questionnaire in Chinese Mandarin**

你好！

我叫 Andreja Osterc，我是斯洛文尼亞盧布爾雅那經濟學院的研究生。在我的碩士學位論文中，我正在研究影響台灣購買葡萄酒的因素，特別關注葡萄酒標籤信息的使用。參與調查是匿名的，對這些問題沒有錯誤的答案。收集的數據將是機密的，僅用於本研究目的。最多只需 5 分鐘即可完成此問卷。您參與本研究將對完成我的研究最有幫助。

如果您能完成這份調查表，我非常感謝您的時間和精力。

非常感謝你！

1. 你喜歡喝酒嗎？

是/否

如果您回答是，則可以繼續進行調查。

2.您是 1981-1996 年之間出生的台灣人嗎？

是/否

如果您以“是”回答了以上問題，則可以繼續進行調查。

3.在這個等級上，您如何用 1-5 的葡萄酒知識來形容自己？

我是：1）我是新手 2）知識淵博 3）知識淵博 4）中度淵博 5）非常知識淵博

4. 想像一下您是要購買葡萄酒供個人消費，還是與朋友在家共進休閒晚餐。 商店中有很多品牌可供選擇。 選擇葡萄酒時，這些品牌元素對您來說有多重要？ 評估每個品牌類別的重要性，從 1（根本不重要）到 5（非常重要）。

| | 1(一点都不重要) | 2 (有点重要) | 3 (中等重要) | 4 (很重要) | 5 (极其重要的) |
|---|---|---|---|---|---|
| a）生產者的聲譽 | | | | | |
| b）高價 | | | | | |
| c）質量獎（金牌得主） | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| d）有機生產 | | | | | |
| e）原產國 | | | | | |

5. 想像一下，您將購買葡萄酒作為禮物。 商店中有很多品牌可供選擇。 選擇葡萄酒時，這些品牌元素對您來說有多重要？ 評估每個品牌類別的重要性，從 1（根本不重要）到 5（非常重要）。

| | 1(一点都不重要) | 2 (有点重要) | 3 (中等重要) | 4 (很重要) | 5 (极其重要的) |
|---|---|---|---|---|---|
| a）生產者的聲譽 | | | | | |
| b）高價 | | | | | |
| c）質量獎（金牌得主） | | | | | |
| d）有機生產 | | | | | |
| e）原產國 | | | | | |

6.您對以下有關酒標信息使用的陳述的同意程度如何？請從 1（強烈不同意）到 5（強烈同意）之間進行評分。

| | 1(强烈反对) | 2 (不同意) | 3 (既不同意也不反对) | 4 (同意) | 5 (非常同意) |
|---|---|---|---|---|---|
| 我發現酒標難以理解 | | | | | |
| 我使用標籤上的信息來比較葡萄酒 | | | | | |

7. 在購買外國葡萄酒時，您更喜歡從哪個國家/地區飲用葡萄酒？a) 美國 b) 新西蘭 c) 澳大利亞 d) 法國 e) 德國 f) 意大利 g) 西班牙 h) 智利 i) 阿根廷

j) 匈牙利 k) 英國 l) 其他

8. 您多久喝一次酒？

a）每週一次或更少一次 b）每週 2-3 次 c）每週 4 次 d）5 次或以上 e) 其他

9.您最常在哪裡購買葡萄酒？

a）專賣店 b）便利店（711 /家庭超市）c）超市 d) 其他

10.您最常購買葡萄酒的價格範圍是？

a）低于 300 NT$ b）301-500 NT$ c）501 -800 NT$ c）801-1200 NT$ e）多於 1201 NT$

11.您的性別是？

男/女

12.您的平均月收入是多少？

a）低於 40,000 NT$ b）40001-65,000 NT$c）65001-80,000 NT$ d) 80,001-95,000 NT$e）95,001-110,000 NT$ f）110,000 NT$以上

13.您獲得的最高學歷是什麼？

a）高中 b）一些大學 c）學士學位 d）碩士學位 e）博士學位

14.您屬於哪個年齡段？

a) (24-26) b) (27-29) c) (30-32) d) (33-35) e) (36-39)

請在此處提供您的電子郵件，以便我通知您是否獲勝。

_____

感謝您的時間和精力。

Andreja 安德烈亞

*Appendix 4. Results of hypothesis 1 and 2; Nonparametric One-Sample Wilcoxon Signed Rank Test, SPSS*

| | Descriptive Statistics | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | Median | Mean | | Std. Deviation | Variance | Skewness | | Kurtosis | |
| | Statistic | Statistic | Statistic | Std. Error | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| I find the information on the wine labels complicated to understand | 156 | 2 | 3.33 | 0.08 | 0.94 | 0.88 | -0.32 | 0.19 | -0.80 | 0.39 |
| I always read the information on the wine labels before purchasing | 156 | 5 | 4.73 | 0.05 | 0.68 | 0.46 | -3.05 | 0.19 | 10.21 | 0.39 |

**Q6 a) Results of hypothesis 1: Nonparametric One-Sample Wilcoxon Signed Rank Test, SPSS**

**Q6a) I find wine label information complicated to understand**

| One-Sample Wilcoxon Signed Rank Test Summary | |
|---|---|
| Total N | 156 |
| Test Statistic | 1533.501 |
| Standard Error | 550.622 |
| Standardized Test Statistic | -8.342 |
| Asymptotic Sig.(2-sided test) | 0.000 |

**Results of hypothesis 2: Nonparametric One-Sample Wilcoxon Signed Rank Test, SPSS**

**Q6b): I always use wine label information to compare wines**

| One-Sample Wilcoxon Signed Rank Test Summary | |
|---|---|
| Total N | 156 |
| Test Statistic | 11757.534 |
| Standard Error | 521.821 |
| Standardized Test Statistic | 10.743 |
| Asymptotic Sig.(2-sided test) | 0.000 |

## Appendix 5. Results of hypothesis 3; Spearman's Rho Correlation, SPSS

Desriptive Statistics

| | N | Range | Minimum | Maximum | Median | Mean | | Std. Deviation | Variance | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Statistic | Statistic | Std. Error | Statistic | Std. Error |
| PC-Importance of producer's reputation | 156 | 4 | 1 | 5 | 2 | 2.54 | 0.08 | 0.94 | 0.882 | 0.53 | 0.19 | -0.14 | 0.39 |
| Wine knowledge | 156 | 3 | 1 | 4 | 2 | 1.85 | 0.068 | 0.844 | 0.712 | 0.56 | 0.194 | -0.71 | 0.386 |

Correlations

| | | | Wine knowledge | Importance of producer's reputation |
|---|---|---|---|---|
| Spearman's rho | Wine knowledge | Correlation Coefficient | 1.000 | .453** |
| | | Sig. (2-tailed) | | 0.000 |
| | | N | 156 | 156 |
| | Importance of producer's reputation | Correlation Coefficient | .453** | 1.000 |
| | | Sig. (2-tailed) | 0.000 | |
| | | N | 156 | 156 |

**. Correlation is significant at the 0.01 level (2-tailed).

## Appendix 6. Results of hypothesis 4, Man-Whitney test, SPSS

Case Processing Summary

| | | Cases | | | | | |
|---|---|---|---|---|---|---|---|
| | | Valid | | Missing | | Total | |
| gender | | N | Percent | N | Percent | N | Percent |
| Importance of organic production | men | 50 | 100% | 0 | 0 | 50 | 100% |
| | women | 106 | 100% | 0 | 0 | 106 | 100% |

Mann-Whitney Test

Ranks

| gender | | N | Mean Rank | Sum of Ranks |
|---|---|---|---|---|
| Importance of organic production | men | 50 | 79.26 | 3963 |
| | women | 106 | 78.14 | 8283 |
| | Total | 156 | | |

Test of Homogeneity of Variance

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| PC Importance of organic production | Based on Mean | 4.085 | 1 | 154 | 0.045 |
| | Based on Median | 0.775 | 1 | 154 | 0.380 |
| | Based on Median and with adjusted df | 0.775 | 1 | 132.413 | 0.380 |

| | | | | | |
|---|---|---|---|---|---|
| | Based on trimmed mean | 3.387 | 1 | 154 | 0.068 |

**Appendix 7. Results of hypothesis 5; Kruskal-Wallis Test, Personal consumption occasion, SPSS**

Case Processing Summary

| | | Cases | | | | | |
|---|---|---|---|---|---|---|---|
| | | Valid | | Missing | | Total | |
| Importance of wine label attributes | | N | Percent | N | Percent | N | Percent |
| Personal consumption occasion | Producer's reputation | 156 | 100% | 0 | 0 | 156 | 100% |
| | High price | 156 | 100% | 0 | 0 | 156 | 100% |
| | Quality awards | 156 | 100% | 0 | 0 | 156 | 100% |
| | Organic production | 156 | 100% | 0 | 0 | 156 | 100% |
| | Country of origin | 156 | 100% | 0 | 0 | 156 | 100% |

| Descriptive statistics - Personal consumption occasion | | | | | | | | | | 95 % Confidence Interval | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Error | Median | Variance | Std. deviation | Skewness | Std. Error | Kurtosis | Std. Error | lower | upper |
| PR* | 2.551 | 0.076 | 2.000 | 0.894 | 0.946 | 0.500 | 0.194 | -0.204 | 0.386 | 2.402 | 2.701 |
| HP* | 1.910 | 0.064 | 2.000 | 0.637 | 0.798 | 1.012 | 0.194 | 1.956 | 0.386 | 1.784 | 2.036 |
| QA* | 2.096 | 0.084 | 2.000 | 1.094 | 1.046 | 0.422 | 0.194 | -1.102 | 0.386 | 1.931 | 2.262 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OP* | 1.731 | 0.071 | 1.000 | 0.779 | 0.882 | 1.013 | 0.194 | 0.408 | 0.386 | 1.591 | 1.870 |
| COO* | 3.487 | 0.086 | 4.000 | 1.142 | 1.069 | -0.400 | 0.194 | -0.637 | 0.386 | 3.318 | 3.656 |

*PR (producer's reputation), HP (hight price), QA (quality awards), OP (organic production), COO (country of origin)

Kruskal-Wallis Test

Ranks

| Importance of wine label attributes | | N | Mean Rank |
|---|---|---|---|
| Personal consumption occasion | Producer's reputation | 156 | 439.323 |
| | High price | 156 | 310.003 |
| | Quality awards | 156 | 343.721 |
| | Organic production | 156 | 268.112 |
| | Country of origin | 156 | 591.339 |
| | Total | 780 | |

Test Statistics[a,b]

| | Personal consumption occasion |
|---|---|
| Kruskal-Wallis H | 219.252 |
| df | |
| Asymp. Sig. | 0.000 |

a. Kruskal Wallis Test

b. Grouping Variable: Personal consumption occasion

**Appendix 8. Post Hoc Test: Bonferroni correction, Pairwise Comparison, Spss, Personal consumption occasion**

| Pairwise Comparisons of Personal consumption occasion | | | | | |
|---|---|---|---|---|---|
| Sample 1-Sample 2 | Test Statistic | Std. Error | Std. Test Statistic | Sig. | Adj. Sig.a |
| OP-HP | 41.89 | 24.60 | 1.70 | 0.09 | 0.887 |
| OP-QA | 75.61 | 24.60 | 3.07 | 0.00 | 0.021 |
| OP-PR | 171.21 | 24.60 | 6.96 | 0.00 | 0.000 |
| OP-COO | -323.23 | 24.60 | -13.14 | 0.00 | 0.000 |
| HP-QA | -33.72 | 24.60 | -1.37 | 0.17 | 1.000 |
| HP-PR | 129.32 | 24.60 | 5.26 | 0.00 | 0.000 |
| HP-COO | -281.34 | 24.60 | -11.43 | 0.00 | 0.000 |
| QA-PR | 95.60 | 24.60 | 3.89 | 0.00 | 0.001 |
| QA-COO | -247.62 | 24.60 | -10.06 | 0.00 | 0.000 |
| PR-COO | -152.02 | 24.60 | -6.18 | 0.00 | 0.000 |

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

**Appendix 9. Results of hypothesis 6, Kruskal-Wallis H Test for Gift-giving occasion, SPSS**

Case Processing Summary

| Importance of wine label attributes | | Cases | | | | | |
|---|---|---|---|---|---|---|---|
| | | Valid | | Missing | | Total | |
| | | N | Percent | N | Percent | N | Percent |
| Gift-giving occasion | Producer's reputation | 156 | 100% | 0 | 0 | 156 | 100% |
| | High price | 156 | 100% | 0 | 0 | 156 | 100% |
| | Quality awards | 156 | 100% | 0 | 0 | 156 | 100% |
| | Organic production | 156 | 100% | 0 | 0 | 156 | 100% |
| | Country-of-origin | 156 | 100% | 0 | 0 | 156 | 100% |

Descriptive statistics

| | Gift-giving occasion | | | | | | | | | 95 % Confidence Interval | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Std. Error | Median | Variance | Std. deviation | Skewness | Std. Error | Kurtosis | Std. Error | lower | upper |
| PR* | 3.185 | 0.080 | 3.000 | 1.004 | 1.002 | -0.070 | 0.194 | -0.873 | 0.386 | 3.027 | 3.344 |
| HP* | 3.378 | 0.102 | 3.000 | 1.630 | 1.277 | -0.270 | 0.194 | -0.987 | 0.386 | 3.176 | 3.580 |
| QA* | 2.917 | 0.081 | 3.000 | 1.032 | 1.016 | -0.270 | 0.194 | 0.194 | 0.386 | 2.756 | 3.077 |
| OP* | 1.763 | 0.078 | 1.000 | 0.956 | 0.978 | 1.080 | 0.194 | 0.205 | 0.386 | 1.608 | 1.917 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COO * | 3.128 | 0.084 | 3.0 | 1.093 | 1.046 | 0.254 | 0.194 | -0.632 | 0.386 | 2.963 | 3.294 |

*PR (producer's reputation), HP (high price), QA (quality awards), OP (organic production), COO (country-of-origin)

Kruskal-Wallis Test

Ranks

| Importance of wine label attributes | | N | Mean Rank |
|---|---|---|---|
| Gift-giving occasion | Producer's reputation | 156 | 449.586 |
| | High price | 156 | 477.493 |
| | Quality awards | 156 | 398.708 |
| | Organic production | 156 | 191.948 |
| | Country of origin | 156 | 434.762 |
| | Total | 780 | |

Test Statistics a,b

| | Gift-giving occasion |
|---|---|
| Kruskal-Wallis H | 170.446 |
| df | 4 |
| Asymp. Sig. | 0.000 |

a Kruskal Wallis Test

b Grouping Variable: Gift-giving occasion

**Appendix 10. Post Hoc test: Pairwise Comparison and Bonferroni correction for gift-giving occasion, SPSS**

Pairwise Comparisons of Gift-giving occasion

| Sample 1-Sample 2 | Test Statistic | Std. Error | Std. Test Statistic | Sig. | Adj. Sig.a |
|---|---|---|---|---|---|
| OP-QA | 206.76 | 24.8219 | 8.32972 | 0.000 | 0.000 |
| OP-COO | -242.81 | 24.8219 | -9.7822 | 0.000 | 0.000 |
| OP-PR | 257.638 | 24.8219 | 10.3794 | 0.000 | 0.000 |
| OP-HP | 285.545 | 24.8219 | 11.5037 | 0.000 | 0.000 |
| QA-COO | -36.054 | 24.8219 | -1.4525 | 0.146 | 1.000 |
| QA-PR | 50.8782 | 24.8219 | 2.04973 | 0.040 | 0.404 |
| QA-HP | 78.7853 | 24.8219 | 3.17402 | 0.002 | 0.015 |
| COO-PR | 14.8237 | 24.8219 | 0.5972 | 0.550 | 1.000 |
| COO-HP | 42.7308 | 24.8219 | 1.72149 | 0.085 | 0.852 |
| PR-HP | -27.907 | 24.8219 | -1.1243 | 0.261 | 1.000 |

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

## Appendix 11. Test of Normality

Tests of Normality

| Variables | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Wine knowledge | 0.26 | 156.00 | 0.00 | 0.81 | 156.00 | 0.000 |
| PC Importance of producer's reputation | 0.27 | 156.00 | 0.00 | 0.87 | 156.00 | 0.000 |
| PC Importance of high price | 0.28 | 156.00 | 0.00 | 0.80 | 156.00 | 0.000 |
| PC Importance of quality awards (gold medal) | 0.24 | 156.00 | 0.00 | 0.83 | 156.00 | 0.000 |
| PC Importance of organic production | 0.31 | 156.00 | 0.00 | 0.77 | 156.00 | 0.000 |
| PC Importance of COO | 0.25 | 156.00 | 0.00 | 0.89 | 156.00 | 0.000 |
| GO Importance of producer's reputation | 0.22 | 156.00 | 0.00 | 0.89 | 156.00 | 0.000 |
| GO Importance of high price | 0.17 | 156.00 | 0.00 | 0.90 | 156.00 | 0.000 |
| GO Importance of quality awards (gold medal) | 0.22 | 156.00 | 0.00 | 0.90 | 156.00 | 0.000 |
| GO Importance of organic production | 0.32 | 156.00 | 0.00 | 0.76 | 156.00 | 0.000 |
| GO Importance of COO | 0.22 | 156.00 | 0.00 | 0.90 | 156.00 | 0.000 |
| I find wine labels complicated to understand | 0.28 | 156.00 | 0.00 | 0.86 | 156.00 | 0.000 |
| I always read the information on the wine labels before purchasing | 0.48 | 156.00 | 0.00 | 0.68 | 156.00 | 0.000 |

a. Lilliefors Significance Correction

*PC-Personal Consumption Occasion, *GO-Gift-giving Occasion

## Appendix 12. Spearman's rho correlation between wine knowledge and the importance of producer's reputation

**Correlations**

Spearman's rho

| | | **Wine knowledge** | **Importance of producer's reputation** |
|---|---|---|---|
| Wine knowledge | Correlation Coefficient | 1.000 | .453** |
| | Sig. (2-tailed) | | 0.000 |
| | N | 156 | 156 |
| Importance of producer's reputation | Correlation Coefficient | .453** | 1.000 |
| | Sig. (2-tailed) | 0.000 | |
| | N | 156 | 156 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Appendix 13. Mann-Whitney test statistic for importance of organic production by gender**

| **Test statistic a** | |
|---|---|
| | Importance of organic production |
| Mann-Whitney U | 2612.000 |
| Wilcoxon W | 8283.000 |
| Z | -0.158 |
| Asymp. Sig. (2-tailed) | 0.875 |
| a. Grouping Variable: gender | |

**Appendix 14. Sales values of alcoholic beverages by category in Taiwan from 2015 - 2020**

*(in million NT$)*

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
|---|---|---|---|---|---|---|---|
| Beer | 530.50 | 526.10 | 542.70 | 543.30 | 538.50 | 532.60 |  |
| Spirits | 62.00 | 63.20 | 61.19 | 59.11 | 57.15 | 54.41 |  |
| Wine | 21.10 | 21.70 | 22.70 | 23.50 | 24.00 | 24.90 |  |
| RTDs | 2.13 | 2.13 | 2.14 | 2.35 | 2.47 | 2.58 |  |
| Cider/Perry | 1.09 | 2.02 | 2.32 | 2.64 | 2.88 | 3.08 |  |

*Adapted from Passport (2020a).*