Dealcoholised wine: exploring the purchasing considerations of South African Generation Y consumers

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Abstract

Purpose – This study contributes to the scant research on dealcoholised wine from a consumer behaviour perspective by providing insight and reporting on the attributes that South African Generation Y consumers prefer when purchasing dealcoholised wine.

Design/methodology/approach – A two-phased research approach was adopted, involving a main quantitative phase, preceded by a qualitative phase. Data were gathered from 626 South African Generation Y respondents by means of a questionnaire. The best–worst scaling method was applied to 13 selected dealcoholised wine attributes, to measure the level of importance of each attribute. To gain more insight on the data, the best-worst scaling scores were further standardised to a probabilistic ratio scale.

Findings – "Taste", "price" and "I have tried it before" were the most important attributes that respondents considered when purchasing dealcoholised wine. Furthermore, "taste" was by far the most important of all the attributes. The attributes of "back label", "attractive front label" and "brand name" were identified as the least important by the respondents, suggesting that they did not consider the visual elements of a bottle of dealcoholised wine as particularly important in their purchasing decision.

Originality/value – The findings of this pioneering study contribute to the lack of knowledge about dealcoholised wine from a consumer behaviour and marketing perspective, and provide insights and strategies that can be used by stakeholders to enhance the dealcoholised wine market in South Africa.

Keywords Dealcoholised wine, Preferences, Attributes, Generation Y

Paper type Research paper

Introduction

"There is nothing permanent except change". These wise words by the Greek philosopher, Heraclitus (cited in Baker, 2020), can also be applied to the age-old industry of alcohol and, more specifically, wine.

From the times of the first intentional fermentation about 9,000 years ago, to the first major breweries built by ancient Egyptians, alcohol has been part of the lives and development of humanity (Hanson, 1995). In more recent years, however, considerable attention has been paid worldwide to alcohol alternatives. One example of these alternatives is beverages that contain little or no alcohol (henceforth referred to as "low- and non-alcoholic beverages"). These beverages have experienced significant growth since the advent of the so-called "mindful" drinking trend.

Despite the rapid upsurge in the low- and non-alcoholic beverage industry, several challenges in respect of the wider acceptance of these products have been identified. Studies suggest that some of the potential challenges causing resistance towards low- and non-alcoholic beverages range from a perceived poor taste and quality of these products, a stigma

associated with not drinking, to a lack of awareness and availability of these products (Bruwer *et al.*, 2014; Bucher *et al.*, 2018; Distill Ventures, 2019). Although researchers have investigated some low- and non-alcoholic beverage types such as light beer and alcohol-free beer, research on reduced and dealcoholised wine has received minimal attention in the public domain (Bucher *et al.*, 2018; Bruwer *et al.*, 2014; Chan *et al.*, 2012). Several studies have focussed on consumer behaviour in terms of wine (Casini *et al.*, 2009; Chrysochou *et al.*, 2012; Lategan *et al.*, 2017; Nunes *et al.*, 2016), but there is a lack of knowledge concerning dealcoholised wine from a consumer behaviour and marketing perspective.

The rise in the mindful drinking trend and growth of the low and non-alcoholic beverages industry present beverage producers with considerable opportunity. However, because of potential challenges preventing wider acceptance and a lack of research on the topic of dealcoholised wine, producers of dealcoholised wine are unable to fully take advantage of the opportunity. By expanding the knowledge on dealcoholised wine and consumer behaviour towards it (in terms of preferences, motives and perceptions), producers and marketers of dealcoholised wine will better understand their target market(s) and will be able to better design and promote the dealcoholised wine product, further stimulating growth in the industry. This pioneering study provides a useful starting point for potential future research in the low and non-alcoholic beverage space.

Therefore, this study set out to gain much-needed insight into the behaviour of consumers when they consider purchasing dealcoholised wine for their own consumption. The research question that the study wanted to answer was, what is the relative importance of a number of product attributes that could influence the purchasing behaviour of South African Generation Y consumers of dealcoholised wine? Based on the results, producers and marketers of dealcoholised wine should be able to adapt their marketing strategies by focussing on attributes that promising consumer groups such as Generation Y deem important when purchasing dealcoholised wine for their own consumption.

This study not only provides a substantial academic contribution in addressing gaps in knowledge surrounding the dealcoholised wine product, particularly in terms of product preferences, but also provides practical contributions and strategies that can be followed by several relevant stakeholders.

Literature perspectives
Low- and non-alcoholic beverage products
Although the consumption of alcoholic beverages has played a central role throughout human history, there is an apparent growth in interest in low- and non-alcoholic beverages (IWSR, 2020). Low- and non-alcoholic beverages contain less or no alcohol at all and can be consumed as an alternative to an alcoholic beverage (Wilks, 2018). Nicholson (2017) notes that, although being available for many years, it was only in the 2010s that the interest in low- and non-alcoholic products has started to increase and gain a presence in the marketplace. According to Meek (cited in IWSR, 2021), CEO of the International Wines and Spirits Record (IWSR) – a leading international data provider on wine consumption – a moderation trend is spreading across a number of key global markets, bringing with it an increased demand for reduced alcohol beverages or alcohol-free beverages.

Kalia (2019), for example, notes that since 2015, 29% of individuals between the age of 16 and 24 in Great Britain have not been drinking alcohol at all, which has led to a demand for low- and non-alcoholic beverages. The growing interest in low- and non-alcoholic beverage products is also evident in other countries. For example, in Germany it was found that 60% of consumers have consumed or intend to consume low- and non-alcoholic beverages (IWSR, 2020). Furthermore, data from the IWSR indicate that in ten leading alcohol-free and low-alcohol markets (Australia, Brazil, Canada, France, Germany, Japan, South Africa, Spain, the

UK and the USA), the non-alcoholic beverage segment experienced a volume growth of 4.5% between 2019 and 2020. These 10 countries collectively comprise 75% of the global consumption of low- and non-alcoholic beverages (Dingwall, 2021).

Furthermore, the overall global alcohol-free beer and dealcoholised wine market was valued at $20 billion in 2018 and is predicted to be valued at over $30 billion by 2025 (Naspetti, 2019). More specifically, the dealcoholised wine market is predicted to be worth more than $10 billion by 2027 (Shaw, 2020).

The dealcoholised wine product

Dealcoholised wine can be defined as wine containing less than 0.5% alcohol by volume (WHO, 2018), created through a process of removing the alcohol from the wine. The process of creating dealcoholised wine is therefore generally similar to that of creating traditional wine, but with additional processes occurring after the fermentation process. Dealcoholised wine can be made in a number of different grape varieties and styles. However, not all dealcoholised wines are produced using the same methods. Different methods can be used to reduce the alcohol concentration in a particular wine.

Alcohol-reduction methods

The simplest methods of reducing the alcohol concentration in wine include blending, reducing the sugar content, or using a specialised yeast (Mangindaan *et al.*, 2018). Since the amount of sugar determines the concentration of the alcohol in wine, vinicultural practices can be used to lower the concentration of sugars in grapes (Bucher *et al.*, 2018). Other methods that can be used to lower the alcohol concentration involve the early harvesting of grapes (Pickering, 2000) or making use of low ethanol-producing yeast, known as "immobilised" yeast (Bucher *et al.*, 2018). However, these methods have a strong negative effect on the quality and sensory aspects of the wine (Pickering, 2000). The issue of poor taste is still present and therefore several post-production methods had to be developed to address this shortcoming.

Post-production methods involve initially creating a full-alcohol beverage and removing the alcohol at a later stage. Traditionally, methods involving heat processes, evaporation and distillation were used, as ethanol is more volatile than water (Mangindaan *et al.*, 2018). However, the taste and aroma are negatively affected by this process. The latest development of modern, improved alcohol-reduction techniques has focussed on membrane technology, which allows for lower energy consumption, high efficiency and significantly reduced costs (Mangindaan *et al.*, 2018). The most efficient and widely used modern alcohol-reduction techniques include reverse osmosis and the spinning-cone column method. Reverse osmosis allows for dealcoholisation to take place under mild temperatures at about 5–10 ℃ (Mangindaan *et al.*, 2018). As several temperature-sensitive compounds are found in wine, reverse osmosis enables dealcoholisation to take place without causing major changes to the sensory quality and taste of the wine (Mangindaan *et al.*, 2018). Alternatively, the spinning-cone column technique is often used commercially in dealcoholisation (Mangindaan *et al.*, 2018). A spinning-cone column is made up of several rotating cones, which are stacked. Wine flows through from the top of the spinning-cone column, and the water vapour is used to extract alcohol from the liquid. In the process, some taste and aroma of the wine are also extracted, which may have a negative effect on the taste and quality of the final wine product (Mangindaan *et al.*, 2018; Pickering, 2000).

By following appropriate alcohol-reduction techniques, beverage producers can preserve the flavour of a full alcoholic product when creating dealcoholised wine. To capitalise on the predicted growth in the low- and non-alcoholic beverage industry, marketers and beverage producers should furthermore identify and focus on appropriate target market(s) for products such as dealcoholised wine.

Generation Y consumers

Although definitions vary, the Generation Y cohort of consumers, also known as "millennials", refers to a group of individuals born between 1980 and 2000 (Nielsen, 2015; Pelet and Lecat, 2014). As the largest portion of the South African population, Generation Y consumers are important to marketers and are gaining an increased foothold in the workforce (StatsSA, 2019). These individuals are known to have high purchasing power and influence over the purchase decisions of other consumer groups, and are considered to consist of future decision-makers (Chrysochou, 2014; Kanonuhwa and Chimuchecka, 2014). The Generation Y cohort of consumers has further been identified as having a strong orientation towards healthier lifestyles. They emphasise health factors when purchasing products (Chrysochou, 2014), and consider factors such as calorie content, nutritional value as well as ethical sourcing of the products (Hoyer, 2017). Generation Y consumers also tend to be more thoughtful than older generational groups about what they eat and drink (Chang *et al.*, 2016). Geller (2016), for instance, found that the vast majority (95%) of Generation Y consumers in the US attach significant importance to their health. In addition, Generation Y consumers place emphasis on how they appear to others, which may play a role in the beverages they choose to drink (Harrington *et al.*, 2012). Generation Y consumers may for example purchase certain products, in this case, beverages, as a form of self-expression (Rivaroli *et al.*, 2019), and may be willing to pay higher prices for products that are in line with how they perceive themselves (Hoyer, 2017). In simple terms, if aspects of the dealcoholised wine product are seen as desirable to Generation Y consumers, and are in line with how they see themselves and want to be seen by others, they may be more willing to buy the product.

Previous studies have identified Generation Y consumers as the most promising group for the low- and non-alcoholic beverages market, as this generation has started to move away from consuming alcohol towards following a healthier lifestyle (Cummins, 2019; O'Brien, 2019). However, owing to a lack of consumer-focussed research, there is a dearth of knowledge on the behaviour of South African Generation Y consumers towards low- and non-alcoholic beverages and dealcoholised wine in particular.

Preferences of product attributes

When selecting a complex beverage, such as traditional wine or dealcoholised wine, consumers may find it difficult to choose, and therefore often rely on the product's attributes to assist them in making a final purchase decision (Nunes *et al.*, 2016; Naspetti, 2019). A comprehensive study that followed a scientometric approach to examine literature on wine selection and preference, found that consumers are not only influenced by the sensory profile and intrinsic attributes of the wine product, but also by the extrinsic attributes (Carollo *et al.*, 2022). It can be argued that more inexperienced consumer groups, such as Generation Y, who may lack sufficient experience with products such as dealcoholised wine, may need to rely mostly on the product's attributes before a final purchase decision is made (Histro and Kuhar, 2015).

Extrinsic attributes are defined as the value-added features of a product (Atkin and Johnson, 2010). Aspects such as price, label, brand name and packaging act as extrinsic (external) attributes that can assist consumers in making a purchase decision of a traditional wine or a dealcoholised wine. Price is typically used as an indication of quality and to determine the value of a product (Bruwer *et al.*, 2014; Bucher *et al.*, 2018; Chan *et al.*, 2012; Nunes *et al.*, 2016). When considering products such as dealcoholised wine, and when consumers are likely to have little knowledge of and experience with the product, the price may be used to assist them in reaching a decision (Stasi *et al.*, 2014). Generally, the front label, packaging and brand name play an important role in differentiating a wine product from those of competitors (Casini *et al.*, 2009; Chan *et al.*, 2012; Chrysochou *et al.*, 2012; Lategan *et al.*, 2017), and they are usually the first

aspects that consumers see when choosing a dealcoholised wine to purchase. For instance, consumers may prefer a brand that they are familiar with, recognise and trust (Cohen, 2009). When deciding on and purchasing a wine product, consumers tend to rely more on extrinsic than intrinsic attributes.

The intrinsic attributes of traditional wine or dealcoholised wine refer to aspects such as the calorie content, grape variety, alcohol level and sensory aspects such as taste and colour. Many of these intrinsic attributes cannot be accessed or judged until after the purchase has been made (Bruwer *et al.*, 2014; Bucher *et al.*, 2018; Chrysochou, 2014). Taste, and evaluating the wine's taste, can be considered as one of the most important factors in a wine purchase choice (Bucher *et al.*, 2019).

Barber *et al.* (2006) further highlight that the wine product, in general, is complex and is based on experience in terms of taste and smell, but usually cannot be tasted before a purchase is made. The quality of a wine is therefore largely judged based on experience with that wine (Koksal, 2019). Therefore, consumers may have difficulty choosing a wine that they are unfamiliar with and have not tried before. Choosing a product, such as a dealcoholised wine that consumers have already tried, may therefore lead to a reduction of risk resulting from uncertainty about the specific product.

The taste of a wine, in turn, can differ depending on the grape variety. A large number of grape varieties exist, each with its own unique taste and colour. Examples of grape varieties include merlot, cabernet sauvignon, chenin blanc and pinot noir (Douglas, 2016). The alcohol content of a wine may also influence the consumer's choice. According to Stasi *et al.* (2014), the alcohol content of a wine has a positive influence on a consumer's preference for that wine, suggesting that dealcoholisation may reduce these preferences. Bucher *et al.* (2018) further support this argument, stating that consumers may perceive a reduction in the alcohol content of a wine as a reduction in the overall quality of the wine.

Many studies on wine attributes that play a role in consumers' preferences have mostly centred on traditional wine (Chrysochou *et al.*, 2012; Cohen, 2009; Lategan *et al.*, 2017; Nunes *et al.*, 2016; Stanco *et al.*, 2020), and only a few studies on wine with a reduced or low alcohol concentration (Bruwer *et al.*, 2014; Bucher *et al.*, 2020; Bucher *et al.*, 2018; Bucher *et al.*, 2019). The investigated wine attributes generally include taste, an attractive front label, information on the back label, recommendations by someone else, in-store promotions, the wine having received an award or medal, the wine matching a particular food, consumers having read about the product, information on the shelf, the brand name, the wine's region of origin, the wine's alcohol level and grape variety (Bruwer *et al.*, 2014*; Chrysochou *et al.*, 2012; Cohen, 2009). However, little research has been conducted on dealcoholised wine, specifically in the context of product attributes and Generation Y consumers. By gaining a deeper understanding of both the extrinsic and intrinsic product attributes that Generation Y consumers prefer when choosing dealcoholised wine, more successful marketing strategies can be developed to meet these consumers' needs.

A brief overview of the research design and methodology that was followed in this study is provided next.

Research methodology

A two-phased research approach was used, which involved a main quantitative phase, preceded by a qualitative phase. Since literature on dealcoholised wine is extremely scarce, further exploration into preferences concerning this product category was needed. Therefore, a qualitative phase was first conducted to investigate whether attributes identified in the literature were relevant to the South African Generation Y consumer. According to Douglas and Nijssen (2003), simply "borrowing" items and scales from existing studies and applying them to a local context can be problematic. It is important to first examine the relevance

thereof in the context of the current study, and the context of the country it is being conducted in.

A focus group comprising eight participants was first conducted to explore, confirm and refine the attributes (relating to preferences) identified in the literature review. The focus group was conducted virtually, and was led by a moderator, using a discussion guide. The individual participants were chosen based on the judgement and convenience of the researcher and fit the sample characteristics of the study (South African Generation Y consumers who had purchased dealcoholised wine in the past 12 months).

Through an extensive review of literature, attributes that could potentially be used for this pioneering study were first identified in previous, related studies conducted in different countries. For example, certain studies were conducted in the context of the USA (Chrysochou, 2014), Malaysia (Chan *et al.*, 2012), the UK (Bruwer *et al.*, 2014), the Netherlands and Portugal (Silva *et al.*, 2016). Furthermore, the majority of studies were not conducted directly on the dealcoholised wine product, but rather related products such as lower-alcohol wine (Bruwer *et al.*, 2014; Bucher *et al.*, 2018), regular wine (Chrysohou *et al.*, 2012), non-alcoholic beer (Silva *et al.*, 2016) and light beer (Chrysochou, 2014). Therefore, before a final data collection instrument could be developed, it was necessary to first ensure that attributes had equivalent meaning in a South African context, and in the context of the dealcoholised wine product. Based on attributes investigated in previous studies and the insights gained from the focus group, a final list of 13 attributes were identified that could be investigated in the quantitative phase of this study. These attributes as well as the studies from which they originated are depicted in Table 1.

The research instrument that was used for the quantitative phase of the study was a questionnaire. The first section of the questionnaire included screening questions to ensure that respondents fit the required characteristics of the sample of the study, namely South African Generation Y consumers who had purchased dealcoholised wine in the previous twelve months. A number of demographic questions, such as gender and age, and whether respondents considered themselves as traditional wine drinkers or dealcoholised wine

Attribute	References
Taste	Bruwer *et al.* (2014), Bucher *et al.* (2018), Chan *et al.* (2012), Chrysochou (2014), Chrysochou *et al.* (2012), Silva *et al.* (2016)
Price	Bruwer *et al.* (2014), Bucher *et al.* (2018), Chan *et al.* (2012), Chrysochou *et al.* (2012), Nunes *et al.* (2016), Stasi *et al.* (2014)
Someone recommended it	Bruwer *et al.* (2014), Chrysochou (2014), Nunes *et al.* (2016), Lategan *et al.* (2017)
Attractive front label	Casini *et al.* (2009), Chan *et al.* (2012), Chryscohou *et al.* (2012), Lategan *et al.* (2017), Nunes *et al.* (2016)
Back label	Bruwer *et al.* (2014), Chrysochou (2014), Cohen (2009), Nunes *et al.* (2016), Lategan *et al.* (2017)
I have tried it before	Casini *et al.* (2009), Chrysochou (2014), Cohen (2009)
Brand name	Bruwer *et al.* (2014), Chrysochou *et al.* (2012), Cohen (2009), Nunes *et al.* (2016), Lategan *et al.* (2017)
Contains very little or no alcohol	Bruwer *et al.* (2014), Chrysochou (2014), Cohen (2009), Nunes *et al.* (2016), Stasi *et al.* (2014)
Matches an occasion	Chrysochou (2014)
Health value	Chan *et al.* (2012)
Promotion	Bruwer *et al.* (2014), Chrysochou (2014), Cohen (2009), Nunes *et al.* (2016), Lategan *et al.* (2017)
Medal/award	Bruwer *et al.* (2014), Chrysochou (2014), Cohen (2009), Nunes *et al.* (2016), Lategan *et al.* (2017)
Matches my food	Bruwer *et al.* (2014), Chrysochou (2014), Cohen (2009), Nunes *et al.* (2016)

Table 1.
Final dealcoholised wine attributes included in the questionnaire

drinkers were included, as well as questions regarding purchase frequency and willingness to pay for dealcoholised wine. In the following section, which dealt with wine preferences, participants were asked to rate the importance of the 13 dealcoholised wine attributes that were identified from the focus group and the literature review.

To measure the preferences of dealcoholised wine attributes, the best–worst scaling (BWS) method was employed. BWS, also known as "maximum difference scaling", is a technique that is often used in wine and beverage studies (Cohen, 2009; Chrysochou *et al.*, 2012; Nunes *et al.*, 2016). This technique requires respondents to make trade-offs between the different attributes, which are presented to them in written form. The degree of importance that respondents assign to each attribute is then measured. Respondents are required to choose a most important and a least important (forced choice) attribute from a series of choice sets (Cohen, 2009). Unlike other scaling methods such as the Likert-type scaling, the BWS method therefore enables a researcher to measure the relative importance of each attribute to another. For the current study, the identified attributes were divided into 13 choice sets of four attributes each, using a balanced incomplete block design (BIBD). This design or procedure ensures that each attribute can be compared to another attribute the same number of times (Cohen, 2009). Attributes therefore appear in different choice sets and in different combinations. Based on the BIBD for 13 attributes, the level of importance of each attribute can be measured on a range of between $+4$ and -4, meaning that an attribute can be chosen as best (or worst) a maximum of four times.

The distribution of the final questionnaire was facilitated by an established South African consumer research firm that specialises in wine research and resulted in the collection of 626 useable questionnaires.

Once the data collection phase was completed, the first step in the data analysis process was to calculate an aggregated BWS score for each attribute. This score was computed by subtracting the total number of times an attribute was indicated as least important from the total number of times the attribute was indicated as most important (Chrysochou *et al.*, 2012.) BWS scores can range from positive, where an attribute was selected as most important more times than least important, to negative where the opposite occurred. Attributes with positive scores can be regarded as those that are important and influential in consumer choice behaviour. In the second step of the data analysis process, each of the aggregated BWS scores were divided by the number of respondents ($n = 626$) to calculate the individual BWS mean score of each investigated attribute. The attributes were subsequently ranked in order of importance, based on the BWS mean score of each attribute (Casini *et al.*, 2009).

To gain more insight into the data, the BWS scores were further standardised to a probabilistic ratio scale, as suggested by Mueller and Rungie (2009). By using a probabilistic ratio, all attributes can be compared with one another by their relative ratio (Mueller and Rungie, 2009). This value is calculated by converting the square root of the best, divided by the worst (sqrt (B/W)) to a 0 to 100 scale. The score for all the attributes is then scaled by a factor, which means that the most important attribute with the highest sqrt (B/W) receives a score of 100 (Mueller and Rungie, 2009). The score for each of the remaining attributes is then calculated by dividing the sqrt (B/W) score of a particular attribute by the sqrt (B/W) score of the most important attribute, multiplied by 100. For example, an attribute with a score of 50 would be 0.5 (half) as important to the sample as the most important attribute with a score of 100.

Results and discussion
Sample characteristics and demographics
The respondents in the realised sample were predominantly female (71%), while 28% were male. One per cent of the respondents chose the options "other" ($n = 3$) or "preferred not to

answer" ($n = 2$). The mean age of both groups (male and female respondents) was almost similar, namely 28.38 and 28.63 years old respectively. A total of 75% of the respondents considered themselves as drinkers of traditional wines, whereas 54% considered themselves as drinkers of dealcoholised wines. The majority of the respondents (30%) purchased dealcoholised wine once every month, 23% purchased once every three months, while only a few respondents (16%) purchased dealcoholised wine once every week. Around 47% of the respondents preferred dealcoholised red wine, while the preference for dealcoholised white wine and rosé wine was almost similar, with 27% and 25% of respondents who preferred these wines respectively. The vast majority of respondents of the total realised sample purchased dealcoholised wine from a supermarket (47%), or a bottle store (41%), whereas very few respondents indicated that they had purchased dealcoholised wine online (5%), from a wine estate (4%) or from a restaurant (3%). In respect of willingness to pay, it was found that the majority of the respondents were willing to pay a relatively low price for dealcoholised wine. They were less willing to pay for dealcoholised white wine than for dealcoholised red wine.

The importance of dealcoholised wine attributes
The primary objective of this paper was to gain insight into the dealcoholised wine attributes that South African Generation Y consumers prefer when considering dealcoholised wine for their own consumption. Table 2 shows the results of the overall ranking of the BWS mean score of the respective attributes related to dealcoholised wine for the total realised sample.

From Table 2 it is evident that the highest level of importance was given to the attributes "taste", "price" and "I have tried it before", followed by "contains very little or no alcohol" and "health value", all of which yielded a positive BWS mean score. Returning a BWS mean score of 2.81 and being the most important attribute, taste was ranked notably higher in importance than the other attributes. Following the approach of the probabilistic ratio scale, taste was given a score of 100, as can be seen in Table 2. Although price was selected as the second most important attribute by the total sample, with a BWS mean score of 0.63, price received a score of 26 on a probabilistic scale. Therefore, based on the relative ratio, price was considered as being 0.26 times as important as taste. In other words, although price was the second most important attribute, it was only a quarter as important to the sample of respondents,

Rank No.	Attribute	Total best	Total worst	Aggregated BWS	Mean of individual BWS	SD of BWS	Sqrt. B/W	Sqrt std
1	Taste	1,819	60	1,759	2.81	1.30	5.51	100
2	Price	790	393	397	0.63	1.81	1.42	26
3	I have tried it before	724	399	325	0.51	1.70	1.35	24
4	Contains very little or no alcohol	712	480	232	0.39	2.03	1.22	22
5	Health value	698	559	139	0.23	2.09	1.12	20
6	Matches my food	639	519	120	0.19	1.78	1.11	20
7	Someone recommended it	641	539	102	0.16	1.78	1.09	20
8	Matches an occasion	582	656	−74	−0.12	1.72	0.94	17
9	Promotion	402	652	−250	−0.40	1.66	0.79	14
10	Medal/Award	426	738	−312	−0.50	1.88	0.76	14
11	Brand name	346	834	−488	−0.78	1.61	0.64	12
12	Attractive front label	248	1,072	−824	−1.31	1.65	0.48	9
13	Back label	111	1,237	−1,126	−1.81	1.54	0.30	5

Table 2.
Ranking of the preferred attributes for dealcoholised wine: total realised sample

than taste. The conclusion can be made that respondents rely strongly on taste when deciding to purchase dealcoholised wine. This finding is in line with those of several other studies of, amongst others, Bruwer *et al.* (2014), Chrysochou (2014), Chrysochou *et al.* (2012) and Lategan *et al.* (2017). However, it is important to note that because of the scarcity of studies on dealcoholised wine, the results of the current study were compared with studies on related beverages (e.g. traditional wine, wine with a lower concentration alcohol, light beer and alcohol-free beer). The majority of studies on the preferences of alcoholic beverages stresses the importance of having previously tasted a beverage before completing a purchase (Chrysochou *et al.*, 2012; Lategan *et al.*, 2017; Nunes *et al.*, 2016). Bucher *et al.* (2018) further highlight the importance of taste for repeat purchases. Similarly, an experience of poor taste could lead to fewer repeat purchases.

The price of a dealcoholised wine was ranked as the second most important attribute. The importance given to price concurs with findings from several other authors (Bruwer *et al.*, 2014; Chan *et al.*, 2012; Stasi *et al.*, 2014). According to Nunes *et al.* (2016), price is often used to indicate value from both a buyer's and a seller's perspective. In situations where a consumer may have limited knowledge of a product, the price will act as a proxy for the quality of that product. As the dealcoholised wine market is still fairly new in South Africa, it can be argued that consumers, especially Generation Y consumers, are likely to have limited experience with this product category. The lack of experience with dealcoholised wine, especially with regard to taste, can therefore result in consumers relying on other attributes and quality indicators than price to make a purchase decision.

However, it is worthwhile to note that several studies suggest that consumers are less willing to pay for light-alcohol products or alcohol-free products (Bucher *et al.*, 2018; Carruthers, 2019; Chan *et al.*, 2012; Distill Ventures, 2019). The majority of the total realised sample of the current study also indicated a fairly low willingness to pay relatively high prices for dealcoholised wine, indicating that they would be willing to pay between 50 and 100 South African rand for a bottle of dealcoholised red or dealcoholised white wine. In this respect, Stasi *et al.* (2014) report that consumers likely will not prefer dealcoholised wine over traditional wine unless it is sold at a discount. It is therefore important for producers and sellers of dealcoholised wine to find a balanced price that is not too high or too low – a price that is too low might indicate poor quality; however, because of the apparent lack of willingness to pay a relatively high price for dealcoholised wine, it is important not to price dealcoholised wine too high either, as price can be a challenge to the wider acceptance of these products (Bucher *et al.*, 2018; Carruthers, 2019; Distill Ventures, 2019).

Another attribute that was ranked high in importance by the total sample of this study was "I have tried it before". This attribute was ranked as the third most important attribute, with a BWS mean score of 0.51 and a score of 24 on a probabilistic scale. This result suggests that the sample relied on their own past experiences when selecting and purchasing dealcoholised wine. In their studies about traditional wine, Casini *et al.* (2009) and Chrysochou (2014) reported similar findings, namely that having previously tried a product was considered to be amongst the most important attributes when selecting a wine. Given that wine in general is a complex product category, consumers may have difficulty in choosing a wine that they are unfamiliar with or a wine that they have not tried before. Choosing a product, such as a dealcoholised wine that consumers have already tried, may therefore reduce the risk of uncertainty about the specific product. Experience or familiarity with a product can thus assist consumers to form certain expectations about the product (Schiffman and Kanuk, 2010), in this case dealcoholised wine.

In addition, the two attributes "contains very little or no alcohol" and "health value" were also ranked as being important, with BWS mean scores of 0.39 and 0.23 respectively. This finding corresponds with those of previous studies conducted by Chan *et al.* (2012) (dealcoholised wine) and Chrysochou (2014) (light beer), in which health benefits and

perceptions of health were found to be prominent. The importance placed on a product's health value by the sample of the current study can be explained by the fact that Generation Y consumers are strongly oriented towards healthier lifestyles and that they take into account health factors when purchasing food and beverages (Chrysochou, 2014).

As can be seen in Table 2, the attributes that were identified as least important by the respondents were "back label", "information on front label", "brand name" and "medal/award". Back label returned the lowest score with a BWS mean score of −1.81. The low ranking of these four attributes suggests that the sample of respondents did not consider visual elements of a bottle of dealcoholised wine as important in their purchase decision. With regard to the probabilistic ratio, a back label was considered to be only 0.05 times as important than taste. In other words, the most important attribute, namely taste, was found to be 20 times more important than a back label. Although back label was also ranked low in importance in previous wine studies (Chrysochou *et al.*, 2012; Lategan *et al.*, 2017), slight differences were apparent. In both these studies, back label was given a low-to-mid level of importance, as the fourth and fifth least important attribute, respectively (Chrysochou *et al.*, 2012; Lategan *et al.*, 2017).

Other low-ranked attributes in the current study included "brand name", "medal/award" and "promotion", all of which relate to elements of marketing and information provided by marketers. In previous studies relating to traditional wine, brand name received relatively high levels of importance compared to the findings of the current study. For example, Lategan *et al.* (2017) established that brand name was the third most important attribute, whereas Nunes *et al.* (2016) found it to be the sixth most important attribute. Similarly, in a study on light beer, the brand name was found to be the third most important attribute (Chrysochou, 2014). However, it seems that, in the case of dealcoholised wine, a brand name is deemed less important. This observation is evident in the findings of both the current study and those of Chan *et al.*'s (2012) study on dealcoholised wine, in which brand name was found to be the least important attribute that respondents would consider when purchasing dealcoholised wine. The low level of importance given to the brand name in the context of dealcoholised wine can be explained by the fact that dealcoholised wine is a relatively new product, with a limited number of brands available. Therefore, although certain established brands in South Africa, such as Leopard's Leap and Van Loveren, offer dealcoholised wines, consumers' familiarity with dealcoholised wine brands in general still lacks. This unfamiliarity with dealcoholised wine brands is in contrast to the many brands that are available for traditional wines. In other words, whereas the traditional wine industry has been around for many years and has had the opportunity to build strong brands and reputations, the same cannot be said for the dealcoholised wine industry.

Conclusions, managerial implications and recommendations

The dealcoholised wine industry faces significant growth potential. By gaining better insight into how promising consumer groups, such as Generation Y, behave towards this product category, producers and marketers of dealcoholised wine can align the marketing of the product to not only improve its appeal to consumers, but also to ultimately increase sales.

The findings of this pioneering study do not only contribute to the limited theoretical knowledge in terms of attribute preferences of the dealcoholised wine product from a Generation Y consumer perspective, but also provide a number of useful implications and recommendations for producers and marketers of dealcoholised wine on how they can successfully appeal to South African Generation Y consumers. To grow the South African dealcoholised wine market and overcome potential challenges towards wider acceptance, it is suggested that role players in the dealcoholised wine industry focus their marketing strategies on dealcoholised wine attributes that are deemed as important by this consumer cohort.

The respondents of this study clearly identified taste as the most important attribute. The emphasis on taste highlights the need to provide consumers with opportunities to experience the dealcoholised product first hand. The importance of taste is further underlined by the high level of importance given to the fact that the wine was tasted previously by the sample ("I have tried it before"). Therefore, a fundamental part of making dealcoholised wine more appealing to Generation Y consumers, and encouraging them to purchase, should involve getting them to taste and experience the product.

The results showed that the respondents' preferred purchase location for dealcoholised wine was supermarkets and bottle stores. Wine estates, restaurants and online did not seem to be popular purchase locations for this product category. A suggestion, therefore, is that producers and marketers of dealcoholised wine provide tasting opportunities at the preferred points of purchase, in this case supermarkets and bottle stores. Consumers may not be aware of these products, and may be sceptical to purchase dealcoholised wine. In other words, risk can be reduced, in that consumers will be given an opportunity to taste dealcoholised wines before making a purchase.

The dealcoholised wine product still suffers from the perceptions of poor taste that is seemingly not comparable to traditional wine. Therefore, it is crucial for producers of dealcoholised wine to explore possible methods and approaches to preserve the flavours and aromas found in traditional wine when reducing the alcohol content in the beverage. Modern dealcoholisation methods should further be explored. For example, advances in alcohol-reduction techniques have resulted in the use of reverse osmosis and the spinning-cone column technique. These techniques make it possible for dealcoholised wine producers to efficiently produce dealcoholised wine at low temperatures and preserving the taste to a greater extent. However, although steps can be taken to improve the taste of dealcoholised wine, delivering a truly comparable and completely satisfactory tasting dealcoholised wine might not be possible as yet. Therefore, it is vital to investigate more strategies and methods to ensure that the taste of dealcoholised wine is more appealing to Generation Y consumers. It is also important to acknowledge that the average Generation Y consumer might not have knowledge of the process of creating dealcoholised wine. Therefore, producers and marketers of dealcoholised wine could consider providing consumers with an explanation of the winemaking process and providing more background information of the dealcoholised wine product.

The attribute "price" also played a central role throughout the results. It is evident that the respondents mostly considered the price of a dealcoholised wine when making a purchase decision. Dealcoholised wine is generally priced the same as traditional wine, but there are a number of additional steps in the dealcoholisation process that result in added production costs. However, it is unlikely that consumers are aware of these additional processes, and they may be under the impression that there is "less" product or less value given that there is less alcohol in dealcoholised wine compared to traditional wine. Dealcoholised wine is therefore still viewed as being expensive or overpriced. As mentioned before, respondents in the realised sample of this study indicated a low willingness to pay relatively high prices for dealcoholised wine. A possible solution to provide Generation Y consumers with a better value proposition would be to offer financial incentives to purchase dealcoholised wine by, for example, selling the beverage at a discount. However, selling dealcoholised wine at a reduced price may not be financially viable for producers in the long run.

Therefore, producers and marketers of dealcoholised wine may need to consider alternative strategies when using price to reach Generation Y consumers. One strategy could be to educate consumers on the highly complex and expensive process that has to be followed to end up with a dealcoholised wine. If consumers are made aware of the complex alcohol reduction process, they might be more willing to pay the relatively high prices of dealcoholised wine as they are more informed of the product.

Generation Y consumers often place importance on how they appear to others (Harrington *et al.*, 2012), and purchase certain products as a form of self-expression (Rivaroli *et al.*, 2019). In the context of beverages, Generation Y consumers may choose to consume certain beverages to portray a certain image of themselves. Furthermore, they may be willing to pay higher prices for products that are in line with how they see themselves (Hoyer, 2017). In simple terms, if aspects of a dealcoholised wine product are seen as desirable to Generation Y consumers, and are in line with how they want to be seen by others, they may be more willing to pay more for the product. As a result, the current prices of dealcoholised wine may become more acceptable to Generation Y consumers. Another suggestion is to link the dealcoholised wine product to the idea of healthy living, given that Generation Y consumers are inclined towards leading healthier lifestyles (Chrysochou, 2014).

It is, furthermore, clear from the trends that emerged from the results of this study that dealcoholised wine is a product that is largely purchased by Generation Y consumers for functional benefits. This focus on functional benefits is evident in the relatively high importance given by the sample to the attributes of "contains very little or no alcohol" and "health value". It can thus be argued that the absence of alcohol in dealcoholised wine is in itself a benefit. Messages should thus be communicated from a health perspective, for example, that consuming dealcoholised wine can provide consumers with the nutritional value of the beverage without the negative effects of alcohol. Dealcoholised wine could also be promoted on social media and health blogs. For example, sponsored collaborations could be made with relevant South African health and fitness Instagram influencers.

It is therefore strongly suggested that in addition to taste and price, producers and marketers of dealcoholised wine should focus on the functional benefits that dealcoholised wine provides.

In addition to highlighting aspects that dealcoholised producers and marketers could focus on to successfully address the needs of Generation Y consumers, the results also highlight elements that are of less importance to this cohort of consumers. Firstly, in respect of preferences, it is evident that the marketing elements of the dealcoholised product such as the "back label", "attractive front label", "brand name" and "medal/award", had very little relevance for the sample compared to the attributes "taste", "price", and "I have tried it before". It is therefore suggested that budgets, resources and marketing efforts not focus on the less important dealcoholised wine attributes, as Generation Y consumers are likely to pay little attention to them.

Limitations/future research

Despite the fact that this study makes a number of useful theoretical and practical contributions, there are a number of limitations in this study, which may serve as guidelines for future research. Firstly, non-probability sampling was used. Ideally, a probability sampling technique should have been used to ensure maximum generalisability. Given that no sampling frame and limited resources were available, probability sampling was not possible.

Future research could expand this study in several ways. Firstly, a larger, more representative sample could be used. In addition, research could be carried out beyond the Generation Y group of consumers. Insight into the behaviour of older generational groups (such as Generation X and the Baby Boomers), as well as younger groups (Generation Z) could be investigated, and compared with the findings of the current study. Furthermore, the study could be applied in other countries, which may provide insight into the potential influence of economic, social and cultural contexts on dealcoholised wine. It might be of interest to compare consumers' behaviour towards dealcoholised wine from both old-world wine-producing countries (such as France, Spain and Italy) and new-world wine-producing

countries (such as Australia, Chile and South Africa). Furthermore, as this study only considered dealcoholised wine drinkers who had purchased dealcoholised wine in the previous 12 months for their own consumption, the sample could be expanded to include other groups, such as wine drinkers or consumers who do not or cannot drink alcohol beverages at all. This study could also be applied in the context of other low- and non-alcoholic beverages, such as gin and whiskey that does not contain alcohol. As the theme of taste was central in the results of this study, experimental and sensory studies could also be considered with the aim of enhancing the taste of dealcoholised wine.

This study therefore paves the way for numerous global studies that can address the rapidly increasing dealcoholised wine market. It is envisaged that the insights gained from this study – and future studies – will motivate role players in the alcohol industry to embrace change and to capitalise on the growing trend of dealcoholised beverages.

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