Wine consumers' knowledge of wine and their self-confidence when selecting wine in different sales contexts

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M Consumer Science: Food Management

Supervisor: Prof. A.C. Erasmus

Co-supervisor: Mr H.J. Fisher

November 2018

Wynverbruikers se wynkennis en selfvertroue wanneer wyn in verskillende verkoopskontekste gekies word

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November 2018

Wine consumers' knowledge of wine and their self-confidence when selecting wine in different sales contexts

by

Renée van Wyk (née Myburg)

Dissertation submitted in partial fulfilment of the requirements for the degree

M Consumer Science: Food Management

In the Faculty of Natural and Agricultural Sciences

Department of Consumer and Food Sciences

University of Pretoria

Supervisor: Prof. A.C. Erasmus

Co-supervisor: Mr H.J. Fisher

November 2018

DECLARATION

I, Renée van Wyk (née Myburg), declare that the dissertation, which I hereby submit for the degree Master's Degree in Consumer Science: Food Management at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

_____

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5 November 2018

ABSTRACT

Wine consumers' knowledge of wine and their self-confidence
when selecting wine in different sales contexts
by
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Supervisor: Prof. A.C. Erasmus
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Department: Consumer and Food Sciences
Degree: M Consumer Science: Food Management

This study investigated South African wine consumers' knowledge of wine (objective- and subjective knowledge) and their consumer self-confidence (CSC) when selecting wine in different sales contexts (off-premise and on-premise locations). Demographic differences, specifically gender, age, income and population group differences were also investigated. A non-experimental, survey-based (using a structured, electronic questionnaire), cross-sectional research design was followed to gather empirical evidence. The questionnaire was distributed throughout South Africa and data was collected by means of non-probability, convenience sampling: 690 completed and usable questionnaires were obtained. Quantitative data analysis included descriptive statistics, t-tests, ANOVA's, post hoc Scheffe tests as well as exploratory factor analysis.

In terms of their wine knowledge, the study found that wine consumers overall had above average subjective and objective knowledge. Results indicate that males, Baby Boomers, high-income consumers and white consumers possess significantly more objective knowledge. Being male and having a high income were found to be predictors of higher subjective knowledge about wine. Three as opposed to six factors as is the case for the original Wine Self-confidence Scale, were extracted through exploratory factor analysis (EFA) for both sales contexts. The first two factors for both sales contexts included similar scale items, while the third factor differed. The factors of off-premise locations were named F1 Decision Confidence, F2 Apprehension and F3 Coaxing Knowledge. The factors of on-premise locations were named F1 Proficiency, F2 Apprehension and F3 Social Outcomes. Persuasion knowledge seemed more important at off-premise locations whereas social outcomes appeared to be more important at on-premise locations. Wine consumers overall possessed an average or above average CSC for all dimensions of the construct. Similar to objective wine knowledge, men,

Baby Boomers, high income consumers and white consumers' CSC was significantly higher in both sales contexts.

Academic implications of the findings include revisiting the WSCS and adapting it to the South African context as well as for different sales contexts. Establishing South African wine consumers' knowledge of wine also serves as a reference point for future research. Investigating the demographic differences in terms of the influence on consumers' wine knowledge and CSC provide new information and a better understanding ofo South African wine consumers' behaviour.

A better understanding of South African wine consumers will be useful to retailers, foodservice operation managers, -owners and marketers to implement unique, purposefully designed marketing strategies to meet the needs of all of these consumer segments more appropriately. In addition, providing adequate and specific information at point-of-sale, will reduce the risk or discomfort associated with wine purchase decisions.

Keywords: Wine Knowledge, Subjective Knowledge, Objective Knowledge, Consumer Self-Confidence

OPSOMMING

Wynverbruikers se wynkennis en selfvertroue wanneer wyn in verskillende verkoopskontekste gekies word deur

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Hierdie studie het Suid-Afrikaanse wynverbruikers se wynkennis (objektiewe- en subjektiewe kennis) en hulle selfvertroue wanneer ‘n wyn in verskillende verkoopskontekste (binneverkope en buiteverkope) gekies word, ondersoek.Verskille ten opsigte van vier demografiese eienskappe, naamlik geslag, ouderdom, maandelikse huishoudelike inkomste en populasiegroep is ook nagevors. ‘n Nie-eksperimentele navorsingsontwerp wat ‘n opname (deur middel van ‘n gestruktureerde, elektroniese vraelys) behels het, is gebruik om empiriese data in te samel. Die vraelys is landswyd deur middel van ‘n onwillekeurige geriefsproefnemingstegniek versprei waardeur 690 bruikbare vraelyste ingesamel is. Die kwantitatiewe data-analise het beskrywende statistiek, t-toetse, ANOVA’s, post hoc-Scheffetoetse en verkennende faktoranalise ingesluit.

Die studie het gevind dat wynverbruikers in die algemeen oor ‘n bogemiddelde subjektiewe- en objektiewe kennis van wyn beskik het. Mans, die sogenaamde ouer geboortegolfbabas (*Baby Boomers*), hoë-inkomste- en blanke verbruikers se objektiewe wynkennis is betekenisvol hoër. Manlike verbruikers en hoë-inkomste verbruikers se subjektiewe wynkennis is hoër. Drie, in plaas van ses faktore soos in die oorspronklike Wynselfvertroueskaal uitgewys is, is deur middel van faktoranalise vir beide verkoopkontekste geïdentifiseer. Die eerste twee faktore van beide verkoopkontekste se skaalitems was soortgelyk en is “*Decision Confidence*” en “*Apprehension*” (buiteverkope) en “*Proficiency*” en “*Apprehension*” (binneverkope) gedoop. Die derde faktor het egter verskil en is “*Coaxing Knowledge*” (buiteverkope) en “*Social Outcomes*” (binneverkope) gedoop. Oorredingskennis het geblyk meer belangrik te wees in buiteverkope, terwyl sosiale uitkomste meer

belangrik blyk in binneverkoopkontekste. Wynverbruikers het algeheel ‘n gemiddelde of bo-gemiddelde verbruikerselfvertroue vir al die faktore getoon. Soortgelyk aan die resultate van die objektiewe wynkennis, het mans, geboortegolfbabas, hoë-inkomste verbruikers en blankes beduidend meer selfvertroue getoon om wyn te kies in beide verkoopskontekste.

Akademiese implikasies van die bevindinge sluit in hertoepassing van die Wynselfvertroueskaal en die aanpassing daarvan vir die Suid-Afrikaanse- en ander verkoopskontekste. Die bepaling van Suid-Afrikaanse wynverbruikers se wynkennis dien ook as ‘n vertrekspunt vir toekomstige navorsing. Bevindinge oor die demografiese verskille met betrekking tot verbruikers se wynkennis en selfvertroue om wyn te kies in verskillende kontekste, bied nuwe inligting en groter begrip van Suid-Afrikaanse wynverbruikers se gedrag.

Resultate is van waarde vir kleinhandelaars, voedseldiensbedryfsbestuurders en -eienaars, sowel as vir bemarkers om unieke bemarkingstrategieë te ontwerp en te implimenteer om doelmatig aan die verskillende verbruikersegmente se behoeftes te voorsien. Daarbenewens sal die verskaffing van voldoende en spesifieke inligting by verkoopspunte, die risiko of ongemak wat met die maak van ‘n wynaankoopbesluit verband hou, verminder.

Sleutelwoorde: Wynkennis, Subjektiewe Kennis, Objektiewe Kennis, Verbruikerselfvertroue

DEDICATION

This is dedicated to my loving husband, Peet,

my ever-supporting parents, Gerrit and Anina,

and my dear in-laws, Andries and Christa.

A man would do nothing, if he waited until he could do it so well that no one would find fault with what he has done. – Cardinal Newman

ACKNOWLEDGEMENTS

The researcher would like to thank the following people for their valuable input and contribution to this dissertation:

Prof. Erasmus for her guidance and support and creating a learning environment encouraging personal and professional growth. **Mr Fisher** for his guidance and inputs to improve this dissertation. Thank you for lending me books from your impressive, ever-expanding and enviable bookshelf.

Prof. Du Rand, thank you for being an inspiring mentor. It was an honour to work for you and learn from you.

Consulta Research (Pty) Limited for their assistance with data collection and capturing. **Dr Liezel Korf** and **Zelmari Coetzee** for their assistance with the statistical analysis of the data collected for this study. Ms Liza Marx from Academic and Professional Editing Services for her assistance with language editing and polishing the rough edges of this dissertation.

The financial assistance of the **National Research Foundation** (NRF) towards this research is hereby acknowledge. Opinions expressed, and conclusions arrived at, are those of the author and are not necessarily to be attributed to the NRF.

Thank you to my patient, supportive husband, **Peet**. This dissertation is as much a joy, burden and accomplishment to you as it is to me. Your support, comfort and patience during this time were more than I could have dreamed of.

My parents who are as in the case of wine, improving with age. You primarily made sure we could get a proper education. Thank you for your time and effort to instil in us from an early age to work hard and aspire to attain a high standard in everything we accomplished. Thank you for the countless times that I could ask for your advice, time and assistance; you provide all without hesitation. **My new parents** who welcomed me with open arms and hearts into their family. Thank you for always listening and supporting me. Thank you for all the times that I could sit with you at home to work on my studies and for all the conversations over countless cups of tea.

All my love to my brother, **Leon**, and my new siblings, **Nina, Jani, Tresia** and **Lofti**. My friends **Ana, Shandre, Nerike** and **Louélle,** you have made these past three years infinitely more fun and I will treasure the memories always. **Ilse**, thank you for always being there for me, for supporting and encouraging me. Thank you for all the times that I could laugh and cry with you about this dissertation. I am eternally grateful for you. **Zani**, your presence during this Master's degree journey was sourly missed. I'll join you soon for another one of our adventures.

Last, but certainly not the least, thank you to our **Heavenly Father** for blessing me with the abilities, resources and talent to complete this dissertation. Thank You for the numerous blessings during this journey including a great support system and funding. May this be a humble offering for all that You have done for me.

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CHAPTER 1

The Study in Perspective

This chapter introduces the research problem, the research aim and objectives for the study, presents a brief overview of the research design and methodology as well as the structure of the research.

1.1 INTRODUCTION

Wine is an alcoholic beverage with 8% to 15% alcohol per volume. It is produced from the fermented juice of freshly picked grapes (Johnson and Robinson, 1994:15; Stevenson, 2005). The juice from fresh grapes undergoes a fermentation process where complex organic compounds convert to simpler substances. Enzymes, bacteria, moulds and/or yeasts convert sugars in the grape juice to alcohol and carbon dioxide, producing heat (Robinson, 1994). Wine is consumed in several ways, such as, a beverage, an accompaniment to food, in cooking and as part of religious rites or practices. Over time, wine became more than just fermented grape juice. It is observed as an art, a science, a tribute to the gods, a status symbol, a conversation starter, a token of reward, and even considered to be beneficial for health when consumed in moderation, amongst others (Bertuccioli, 2010a; Chang, Thach and Olsen, 2016; Ritchie, 2007; Robinson, 1994:486; Stevenson, 2005; Vandyke Price, 1985:11-16).

Ample research and experimentation were conducted to develop wines into a fine art and science. Research indicates: Adjusting the soil, pruning of the vines, experimenting with various harvesting methods, attending to the maturation process and blending techniques, amongst others, develop wines with unique sensory attributes (Jennings and Wood, 1994; WSET, 2014:8-13). These unique sensory attributes can only be discovered once the bottle is opened (Thomas and Pickering, 2003). An immense variety of wines are available from distinctive vintages, origins, brands and grape varieties. These savours differ in quality and price, even from one year to the following, in the same wine from the same winemaker. Moreover, consumers are aware of the risk of selecting the wrong wine for a specific occasion, leading to a possible loss in admiration from peers or personal dissatisfaction (Thomas and Pickering, 2003), indicating why wine is perceived as a complex purchase decision (Bruwer, Saliba and Miller, 2011).

Resulting the complexity of wine as a commodity that is used under various circumstances and ranging considerably concerning type and price, consumers' self-confidence (CSC) to select the most suitable wine for a specific occasion is inevitably influenced. Consumer self-confidence is defined in various ways and encompasses "an individual's relative stable self-appraisal that is grounded in a person's self-concept, proposing that CSC is based on a subjective evaluation of one's confidence in your own abilities and authority to act appropriately in a specific context in the market place" (Adelmann, 1987; Blascovich and Tomaka, 1991; Clark, Goldsmith and Goldsmith, 2008; Erasmus, Donoghue and Fletcher, 2015). A lack of CSC when faced with a complex purchase decision can contribute to stress and discomfort during the selection process (Barber, Almanza and Donovan, 2006). Researchers established that product knowledge, such as wine, might not necessarily deter consumers' self-confidence because they might not be worried about the perceived negative consequences (Lockshin, Spawton and Macintosh, 1997). In contrast, Barber *et al.* (2006) have established that some individuals that possessed adequate knowledge to select the correct wine, nevertheless lacked the self-confidence to do so. Perceived risk is one of the major factors influencing the self-confidence and purchasing behaviour of wine consumers (Lockshin, Jarvis, d'Hauteville and Perrouty, 2006; Mueller, Lockshin, Saltman and Blanford, 2010a).

The consequences of the wrong decision could result in "negative social perceptions" (Atkin and Thach, 2012). When faced with the wine purchase decision in the absence of being able to evaluate the sensory attributes and quality of the wine (intrinsic cues), a consumer will probably revert to evaluating the wine and perceived quality of the wine based on extrinsic cues such as brand, wine company, bottle shape, colour and weight, label design, region-of-origin and price (Thomas and Pickering, 2003). Label information is therefore of substantial value to the consumer during the wine purchase decision.

The location of purchase and the frequency of wine consumption play a significant role in CSC of wine consumers (Lacey, Bruwer and Li, 2009; Ritchie, 2009; Schamberg, 2002). It is easier for consumers to select a wine at an off-premise location (e.g. a retail shop) than at an on-premise location, such as a restaurant (Ritchie, 2009), as the information acquisition and assistance from personnel at these locations differ. For example, at an on-premise location, food is crucial in the selection of the wine that needs to serve as an accompaniment to the food (Schamberg, 2002). In a study investigating consumption situations, it was established that the constituents that comprise the consumption situation are more important in the selection of an alcoholic beverage than the alcoholic beverage itself (Agnoli, Begalli and Capitello, 2011). Sbrocco (2003) found that females are inclined to consume more wine when dining at a restaurant than males. Wine preferences and purchasing behaviour also differ amongst consumers of various age groups (Murphy, 1999).

Wine consumption habits and preferences are established in consumers' late teens to mid-20's (Bruwer, 2002; Bruwer, 2004). Older wine consumers consume more wine than their younger counterparts (Allen, 2002; Bruwer *et al.*, 2011). However, in recent years, Millennials and GenXers (Generation X) have a higher disposable income than before and could therefore be an emerging market for marketers to tap into (Resnick, 2008:62; Teagle, Mueller and Lockshin, 2010; Wright, 2006). Little research was conducted on consumers' level of income and how it influences their wine knowledge and purchasing behaviour, whilst income may be an indication of consumers' ability to afford wine. Little is known about the differences in wine purchasing behaviour of various population groups, which may be relevant due to cultural differences in eating habits and socialising behaviour. Thus, not only is it beneficial to investigate wine consumers' wine knowledge and the part of different sales contexts concerning its influence on CSC, but also to investigate the behaviour of various demographic groups, such as gender, age, income and population groups when selecting wine to gain an improved understanding of the consumption of a beverage that is highly popular, according to statistical evidence, both locally (Loots, 2017; SAWIS, 2016; Wesgro, 2017) and internationally (BNP Paribas Wealth Management, 2018; OIV, 2017a; OIV, 2017b).

The importance of investigating South African wine consumers' wine knowledge and CSC is set within the milieu of the global wine industry and not only is it important to understand the consumer and to effectively market wine to them, but the wine industry itself can also serve as a prominent external factor that influence consumers' wine purchase behaviour. For example, the wine industry is water-intensive, which may deter consumers from purchasing wine due to the recent drought (knowing that wine production depends on copious amounts of water), especially in the Western Cape province that is world renowned for its wine production. Global wine production in 2016 extended to 259 million hectolitres and decreased with 8.2% from 2016 to 2017, reaching an estimated 246.7 million hectolitres in 2017. To the contrary, Old World wine producing countries such as Italy, France and Spain have had the greatest wine production in 2016, although historically, their production levels were still low, amounting to €27.7 billion for the period of 2016-2017. The USA, South America and Australia saw an increase in production levels from 2016 to 2017 (BNP Paribas Wealth Management, 2017; OIV, 2017b).

Wine is deeply ingrained in South Africa (SA)'s history, traditions and culture (Hands, Hughes and Phillips, 2001; Swart and Smit, 2009:12-15). The wine industry in South Africa is not only focussed on the production of natural (table) wine and grape juice but also on fortified and sparkling wine, brandy and other spirits distilled from wine, and grape juice concentrate that are necessary to produce non-alcoholic drinks (SAWIS, 2016). SA ranks eighth of the world's largest wine producing countries, and 12th concerning area of land under vines (SALBA, 2015; Wesgro, 2017). SA's production level remained relatively stable (marginal increase of 2%) at 10.8 million hectolitres despite the devastating drought, specifically in the Western Cape (PWC, 2015). Distell (Pty) Limited, with a 41% market share in the domestic market (Euromonitor, 2017), was ranked as

the 12th largest wine producing company in the world in 2016 and produced 0.6% of the world's wines (Wesgro, 2017). The major concerns faced by the South African wine industry in the period of 2015-2016 were energy costs, issues surrounding land reform, problems with labour productivity, and the inconsistent supply of energy that followed the load shedding escapade of 2015 (PWC, 2015).

1.2 PROBLEM STATEMENT

Regarding the importance of boosting wine consumption in SA, Tim Atkin, a world-renowned master of wine and journalist, recently said the following about South African wines: "South Africa is a match for any other New World country in terms of quality and ahead of the field on value" (Atkin, 2017). SA is known as one of the New World wine producing countries (Swart and Smit, 2009:12) and was the eighth largest wine producing country in the world in 2015 (SALBA, 2015). The wine industry's contribution to the Gross Domestic Product (GDP) in 2004, was valued at R16.3 billion (Joubert, 2004) and in the year 2013 it was responsible for 1.2 % of SA's GDP (SALBA, 2015). In the same year, R36.1 billion was contributed to the economy by the wine industry, whilst also creating close to 300,000 jobs in various sectors, the agricultural sector, wholesale and retail sectors, tourism sector and the marketing sector (SALBA, 2015). SA is also an exporter of bulk wine and the export market has steadily grown over the last 12 years (DAFF, 2015; Wesgro, 2017). The per capita domestic consumption of natural wine in 2010 and 2015 amounted to 6.18 litres and 7.73 litres, respectively. In addition, there were 9500 diverse wines in the 750 ml bottle-variation available in SA (Robinson, 2016). Whilst the importance of wine concerning the economy of SA is undeniable, researchers concur that wine took somewhat of a backseat to other alcoholic beverages, in particular beer (Agnoli *et al.*, 2011). This is especially true for SA, with the highest beer consumption rate on the African continent (BMI, 2017 in Wesgro, 2017) with evidence that local wine consumption has decreased with 5% during the period 2009 to 2010 (DAFF, 2011).

In terms of understanding the needs, preferences, concerns and behaviour of wine consumers, it is imperative to acknowledge that, for several years, wine purchasing was viewed as a masculine activity (Mitchell and Hall, 2004). Somewhat contradictory, wine carried the stigma of being a feminine product, which may deter males from purchasing wine (Barber, 2009). In a Japanese study, it was established that female wine consumers were the "main wine purchase decision-maker[s]" (Bruwer and Buller, 2012). Many studies have reported significant differences in wine knowledge of males and females and their wine purchasing behaviour (Bruwer and Johnson, 2005; Bruwer and Li, 2007; Bruwer *et al.*, 2011; Low, 2001; Ritchie, 2007; Sbrocco, 2003). Apart from gender differences, other researchers have established that consumers' age is an indication of their wine knowledge (Barber, Taylor and Dodd, 2009b) and wine purchasing and consumption behaviour (Allen, 2002; Batt and Dean, 2000; Bruwer, 2002; Bruwer, 2004; Bruwer *et al.*, 2011; Euromonitor, 2007; Murphy, 1999; Thach and Olsen, 2006). Individual drinking

preferences are established by the age of 40 years (Murphy, 1999). Furthermore, older wine consumers consume more wine than their younger counterparts, who are often occasional wine drinkers (Allen, 2002) and as such, older consumers may have more product knowledge. Generally, younger consumers prefer sweeter, white and blush wines than older individuals (Bruwer *et al.*, 2011; Lewis, 2004). Also noteworthy, is Millennials, i.e. consumers who are currently younger than 37 years of age, are inclined to purchase significantly more wine at on-premise locations (restaurants, hotels, bars and clubs) than their older counterparts, as they have higher mobility and freedom (Bruwer *et al.*, 2011). Related evidence pertaining to population- and income level differences, is sparse. Cross national comparisons were difficult due to income level categories and living standards that vary between countries with the additional problem of the ever-changing exchange rates.

Regarding consumers' ability to confidently choose wine for particular occasions in different contexts, it should be noted that an overwhelming variety of wine is available in the marketplace and that sales contexts, and the potential assistance that consumers could expect, differ vastly from one situation to the next. The choice of the correct wine can therefore be quite an intimidating experience. For several consumers, the quality of wine can only be ascertained after opening and consumption of the wine, suggesting that often, a consumer has to make a purchase decision in a market with an overwhelming array of wines, without complete information (Thomas and Pickering, 2003), complicating consumers' purchase decisions (Barber, Ismail and Taylor, 2007b; Lockshin *et al.*, 2006; Mueller *et al.*, 2010a; Thomas and Pickering, 2003). Information is important during the wine purchase decision as it helps to mitigate perceived risks (Chaney, 2000). Undeniably, wine purchases may have negative outcomes that inter alia may be personal in kind (sense of failure), social (sense of disappointing others), physical (allergic reaction to sulphites or hangover) and financial (wasted money due to wrong choice) (Mitchell and Greatorex, 1989).

Challenges that may jeopardise consumers' ability to confidently choose the right wines, include that the labels on South African wine bottle lack a universal objective quality indication system or expert-endorsed system (e.g. Platters five-star rating or Tim Atkin's score out of a maximum of 100) to inform consumers of the quality of the wine in the bottle. Some wine bottles in SA sport a sticker from Platters with a star rating ranging from one to five stars but this system is not applied to all bottles. The methods – focussed on region of origin (ROO) – the European Union's designations of origin (PDO) and geographical indications (PGI) have strict regulations concerning what wine producers need to adhere to in order to reflect the designation on the bottle. In exchange for adhering to stricter rules, the winemaker will benefit from the collective reputation of this designation that is useful to a consumer "since geographical designations may be regarded as a certification of quality" (Agostino and Trivieri, 2014) that will make it easier for wine consumers to select wine confidently. However, ROO is not the sole factor influencing wine quality: climate is also crucial in wine production and therefore ROO is not a clear-cut method to designate quality (WSET, 2014:14-18), indicating

how complex the wine selection process can be, especially for less experienced and less knowledgeable consumers .

Already in 2009, Barber, Taylor and Dodd suggested that research should investigate influences of consumers' knowledge and self-confidence during their wine purchase decisions and how that differs in various purchase situations. For example, wine sales at supermarkets have increased drastically over the last two decades: a multinational study established that 62% of wine purchases were made at supermarkets (Forbes, 2012). In a study investigating consumption situations, it was found that the elements that the consumption situation are comprised of, are more important in the selection of an alcoholic beverage, than the alcoholic beverage itself (Agnoli *et al.*, 2011). To date in SA, empirical evidence of consumers' wine knowledge and CSC to select wine in different sales contexts is lacking. This information is crucial concerning the kind and level of consumer facilitation that is required in different retail/consumption contexts. To summarise, from the industry's point of view: ''If we can understand how confidently consumers choose wine, then we have a much better framework to decide pricing, packaging, distribution, advertising, and merchandising strategies" (Lockshin and Hall, 2003). The research problem for this study, hence incorporates several pertinent issues, indicating: the importance of boosting wine consumption in SA; understanding the needs, preferences, and behaviour of wine consumers to adapt marketing initiatives appropriately, and consumers' ability to confidently choose wine in different sales contexts.

1.3 JUSTIFICATION OF THE RESEARCH

From a theoretical point of view, this study will provide empirical evidence of South African wine consumers' wine self-confidence in different purchasing contexts. The CSC investigation was based on the CSC scale, developed and validated by Bearden, Hardesty and Rose (2001). The scale was later adapted to serve as a Wine Self-Confidence Scale (WSCS) (Olsen, Thompson and Clarke, (2003). More than a decade later, the WSCS was reassessed by McClung, Freeman and Malone (2015) and has to date not been used in the wine context again. Moreover, the scale has certainly not been used in the South African wine context that vastly differs from situations in First-World countries even though SA is a prominent wine producer globally that merits more attention to wine consumers in the market. Experiences gained by the use of this scale would add value concerning the refinement of a WSCS that could be developed further for a South African context.

The importance of wine as a consumer product is indisputable: apart from its contribution to SA's GDP, it is important to note that SA wine makers have won several national and international accolades over the years for the quality of their wines. For example in 2016 alone, six local Chardonnays won gold medals at the 2016 *Chardonnay du Monde* held in Burgundy, France (Froud, 2016). On a practical level therefore, one could argue that it is important to accommodate South African wine consumers' needs and to ensure that their purchasing and consumption of this important commodity is a unintimidating experience. It will also enable

marketers to better advertise to consumers with varying levels of CSC as "information laden ads" are less likely to attract the attention of consumers with low CSC (Bearden *et al.*, 2001). This requires evidence of South African wine consumers' self-confidence when purchasing wine in diverse contexts, explicated in terms of their knowledge (subjective and objective) of wine. Furthermore, this study also shed light on demographic differences of consumers' wine self-confidence that could inform marketing strategies in the future. Empirical evidence of the CSC of wine consumers' in different purchasing contexts will provide invaluable evidence of the kind and type of support that might be needed in different purchasing contexts and will provide guidelines concerning how South African consumers' knowledge about wines can be enhanced.

1.4 THEORETICAL PERSPECTIVE

The Rational Choice Theory (RCT) was used in this study as an appropriate theoretical perspective to investigate consumer decision-making when purchasing wine. The RCT was used in the fields of Economics, Sociology, Political Sciences, Law, Anthropology and Criminology to try and explain social change through rational choices (Green, 2002; Hechter and Kanazawa, 1997). The RCT was applied to wine consumers' self-confidence as the theory assumes that humans are rational beings that make rational decisions (Babin and Harris, 2013:250; Solomon, 2007:306). The RCT postulates that consumers calmly and meticulously collect and integrate all information, including previous knowledge and experiences, concerning a product and the possible outcomes; and that they also consciously evaluate the possible outcomes before concluding a purchase decision (Jackson, 2005). A rational individual will choose the possible outcome that promises the greatest satisfaction or reward (Scott, 2000:128) and the individual will refrain from choosing outcomes that may lead to social punishment or the disapproval of others (Jackson, 2005). Regarding a wine purchase decision, possible positive outcomes are approval of, or impressing friends, family and peers with the wine selected; satisfactory wine quality or taste and selecting a wine with a good price-to-quality ratio. Negative outcomes are associated with perceived risks, such as choosing a wine with an undesirable taste or one that does not pair well with the food it is served with (functional risk) and a subsequent feeling of despondency (psychological risk), that money was wasted (financial risk), and choosing a wine that is disapproved by friends, family and colleagues (social risk) (Mitchell and Greatorex, 1988).

The decisions of wine consumers when faced with the wide variety of wine to choose from, whether in a retail context or in a place of refreshment such as a restaurant, will depend on their level of CSC. It can be assumed that wine consumers with a higher Wine Consumer Self-confidence (WCSC) will make rational decisions because they have the cognitive ability to do so. Conversely, those with a low WCSC might rather resort to emotional responses or risk reducing strategies to choose a wine.

1.5 RESEARCH AIM AND OBJECTIVES

The principle aim of this study was to investigate and describe SA wine consumers' knowledge of wine, and to distinguish between consumers' objective- and subjective knowledge of wine. The secondary aim of this study was to investigate and describe SA wine consumers' self-confidence concerning selecting wine in different sales contexts, distinguishing on-premise and off-premise locations. The relationship between CSC of wine consumers and their demographic characteristics, namely gender, age, income and population groups, is also investigated.

The objectives and sub-objectives (indicated in brackets) of the study were:

Objective 1: To investigate and describe wine consumers' knowledge of wine and to distinguish significant differences within *four demographic characteristics*.

Sub-objective 1.1: To investigate and describe wine consumers' **objective knowledge** of wine and to distinguish significant differences within *gender* (1.1.1), *age* (1.1.2), *income* (1.1.3) and *population group* (1.1.4) categories.

Sub-objective 1.2: To investigate and describe wine consumers' **subjective knowledge** of wine and to distinguish significant differences within *gender* (1.2.1), *age* (1.2.2), *income* (1.2.3) and *population group* (1.2.4) categories.

Objective 2: To investigate and describe wine consumers' CSC when selecting wine in different sales contexts and to distinguish significant differences *within four demographic characteristics*.

Sub-objective 2.1: To investigate and describe wine consumers' CSC when selecting wine at **off-premise locations** and to distinguish significant differences within *gender* (2.1.1), *age* (2.1.2), *income* (2.1.3) and *population group* (2.1.4) categories.

Sub-objective 2.2: To investigate and describe wine consumers' CSC when selecting wine at and **on-premise locations** to distinguish significant differences within *gender* (2.2.1), *age* (2.2.2), *income* (2.2.3) and *population group* (2.2.4) categories.

1.6 STUDY AREA

The investigation was conducted across all nine provinces of SA. The provinces and their capital cities have distinct differences in their demographic composition (STATS SA, 2017a). Furthermore, various subcultures exist within the same population group. Selecting respondents from one province only would have caused

biased data. For example, one would expect that the wine knowledge of wine consumers from the Western Cape (where the wine "hub" of SA is located) may differ from consumers in other regions in the country where wine production occurs less or is non-existent.

1.7 RESEARCH DESIGN AND METHODOLOGY

A single phase survey research (non-experimental) quantitative approach was followed (Creswell, 2014:12-13). The quantitative approach comprised an electronic survey conducted through Consulta Research (Pty) Limited across the nine provinces of SA, through convenient and snowball sampling methods (Kumar, 2014:134), including wine consumers from various education levels, population groups, income groups, both gender groups and age groups, provided they were at least 21 years of age.

The measuring instrument used for this study was the adapted version, WSCS, of the CSC Scale of Bearden *et al.* (2001) that was produced by Olsen *et al.* (2003). The WSCS was adapted from the CSC scale by changing of the wording to relate to the wine purchase situation although it aimed to retain as much as possible from the original scale, therefore enhancing face validity. The wording of this study's scale was adapted according to the recommendations made by Olsen *et al.* (2003) and McClung *et al.* (2015).

A pre-test (using hard copy, paper-based questionnaires) with a small group of wine consumers was conducted initially to ensure that the questions and the questionnaire were easy to understand and that the constructs were correctly formulated (Babbie, 2016:259). The questionnaire comprised predominantly closed-ended questions and was divided into six sections, namely A) Wine Purchasing Behaviour, B) Subjective Knowledge of Wine, C) Objective Knowledge of Wine, D) CSC at Off-premise Locations, E) CSC at On-premise Locations and F) Demographic characteristics. Once the questionnaire was finalised, it was distributed electronically by Consulta Research (Pty) Limited to its members fitting the sampling criteria (age and being a wine consumer). Six hundred and ninety completed questionnaires were collected within a period of three weeks.

1.8 DATA ANALYSIS

The questionnaire was tested and screened in a pre-test to ensure that the constructs as indicated in the objectives were measured, that the questions were relevant and unambiguous, and that the questionnaire would not take too long to complete thus leading to fatigue and consequently incorrect responses. The feedback from the pre-test, i.e. small changes in wording, was incorporated into the final questionnaire.

Data was automatically captured with the assistance of software of Consulta Research (Pty) Limited and cleaned to remove unusable questionnaires. Data was converted to an Excel format after. It was then exported to SPSS, the Statistical Package for the Social Scientist. Data was analysed by computing descriptive

statistics (frequencies, percentage values, means, and standard deviations). Means, analysis of variance (ANOVA), t-tests, and post hoc Scheffe tests were performed to investigate significant differences amongst and within demographic groups. Exploratory factor analysis (EFA) using Principal Axis Factoring and Oblimin Rotation with Kaiser Normalization was used to determine underlying factors of the WCSC scale in the context of this study. Cronbach's Alpha was calculated to ensure the internal consistency of the various factors of the WCSC scale as well as the knowledge constructs. The percentage of variance that was explained by data was also calculated.

Unfortunately, the inferences that were made cannot be generalised to the entire population of SA, since the sample size was not representative of SA's population, and neither were the demographic categories characteristic of the country's demographic distribution. It was, however, considered sufficient to serve as an explorative study that formed part of an academic document. Due to time and financial constraints, this study was of an exploratory nature and descriptive in kind.

1.9 ELIMINATION OF ERROR

Various measures were taken to eliminate error throughout of the stages of the research. Being a quantitative study, effort was made to ensure the validity and reliability of the study as explained in the following section.

1.9.1 Validity

For a research study to be valid, data obtained should accurately address the pre-set objectives of the study and explain any discrepancies established through the measuring instrument.

Theoretical- and construct validity were achieved by carrying out a thorough literature review to gain insight into wine consumers' self-confidence when selecting wine in different sales contexts. This ensured that the theoretical constructs that were used, were captured accurately, were relevant and that the research was based on extant research that was relevant (Bagozzi, Yi and Phillips, 1991; Leedy and Ormrod, 2014:91; Peter, 2015).

Content validity in this study was ensured by the following measures: i) the measuring instrument (electronic questionnaire) was analysed several times by the supervisors who are knowledgeable in this field and ii) the electronic questionnaire was analysed and improved by a professional statistician from the Department of Statistics at the University of Pretoria to ensure that data obtained through the survey was usable and would be able to address the objectives of the study. In addition, to increase the **criterion validity** of the measuring instrument, related studies were consulted to examine measuring instruments/techniques that were considered effective. A pre-test was also conducted to establish the effectiveness of the measurement

instrument to achieve the aims of this study (Cooper and Schindler, 2008:209; Leedy and Ormrod, 2014:91). The pre-test was overseen by the supervisors of the study and analysed by a professional statistician to ensure its content and **face validity,** i.e. that the concept in question were amply captured in the measuring instrument (Bryman and Bell, 2011:38; Maithel, Sierra, Korndorffer, Neumann, Dawson, Callery and Scott, 2006). **Inferential validity** was ensured with the assistance of a professional statistician to ensure that the inferences drawn from the data, were indeed appropriate and valid.

1.9.2 Reliability

Reliability is focussed on the measurement instrument and its ability to be "free of random or unstable error" (Cooper and Schindler, 2008:181, 259-261). Reliability of the survey was ensured by providing willing participants with the same questionnaire, i.e. standardisation of the data collection procedure and not interfering with responses (Leedy and Ormrod, 2014). Aspects that may have affected the reliability of data and which were difficult to address, are: "random or unstable error" due to the mood of respondents while completing the survey, thus not taking the exercise seriously. The same applied for respondent fatigue in cases where some may have thought that the questionnaire was too long. However, respondents were clearly informed that they could withdraw any time without any consequence and therefore it was assumed that responses would largely be truthful and valid.

1.10 ETHICS

Ethical considerations are important when conducting research (Creswell, 2014:92-101). Ethical behaviour is based on a set of beliefs about what is morally right and wrong (McIntosh, 2013). Many authors on research methodology have expressed steps in the research process that require proper ethical conduct (Creswell, 2014; De Vos, Strydom, Fouché and Delport, 2011; Kumar, 2014; Salkind, 2013; Walliman, 2011). These steps include ethical consideration prior to commencing with research, during data collection and analysis procedures and when reporting, sharing and storing data. The key ethical considerations that were applicable to this study are ethical approval from the Faculty of Natural and Agricultural Sciences (NAS), the applicable faculty of the University of Pretoria; prevention of plagiarism; ensuring voluntary participation of and gaining informed consent of the respondents before they could commence with the survey; protection of participants' privacy by not disclosing any names and indicators of identity; transparent data collection by a professional company, data analysis and interpretation of the data; utilisation of an appropriate theoretical perspective to direct the study; not deceiving respondents, thus indicating the researcher's limited academic experience and the subsequent contribution of the study leaders, statistician and proofreader, and also disclosing that the study was part of an academic endeavour.

Keeping in mind the seriousness of ethics in research, implementation of ethical practices was carefully considered in all of the research areas as stated above to protect participants, ensure validity of data and data analysis and ensuring scientific and academic integrity. The key values (i.e. respect for the individual, professionalism and social responsibility) as set out in the Code of Ethics for Research of the University of Pretoria were regarded with great respect and were adhered to in this research study.

1.11 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

The **terminology, acronyms and abbreviations** with their corresponding definitions used in this dissertation are as follows:

Cellar door	A winery's tasting room where their wines can be tasted and discussed with personnel or the winemaker self.
Consumption situation	Also referred to as situational use, consumption occasion and consumption location. The occasion for which the wine is bought, e.g. for consumption at home by oneself or with others, for consumption away from home or as a gift, investment or prize (Barber, 2008).
COO	Country of origin
CSC	Consumer self-confidence: "the extent to which an individual feels capable and assured with respect to his/her market place decisions or behaviours" (Barber, 2008; Bearden *et al.*, 2001).
CSF	Consideration set formation: Making a list of product alternatives that will satisfy one's needs (Olsen *et al.*, 2003).
DM	Decision-making: Constitutes a consumer's perceived ability to make consumer decisions and to collect and utilise the information to make purchase decisions (Olsen *et al.*, 2003).
EFA	Exploratory Factor Analysis
HHI	Household income: In this study it refers to monthly household income before tax deductions.
IA	Information acquisition: Refer to the type and quantity of information sought and where to find it before or during the purchase situation (Barber, 2008; Olsen *et al.*, 2003).
MI	Marketplace interfaces: Having the ability to be assertive in the purchase situation (Olsen *et al.*, 2003).
$K_{Obj.}$	Objective knowledge: What consumers actually know; factual knowledge (Dodd, Laverie, Wilcox and Duhan, 2005).
$K_{Subj.}$	Subjective knowledge: What consumers think they know (Dodd *et al.*, 2005).
KZN	KwaZulu-Natal

Off-premise locations	Locations where wine is purchased and taken home or elsewhere for consumption, e.g. retail store, grocery shop and a liquor store.
On-premise locations	Locations where wine is purchased and consumed on site, e.g. hotel, restaurant, bar and nightclub.
PK	Persuasion knowledge: Having the ability to see through sales gimmicks (Olsen *et al.*, 2003).
PO	Personal outcomes: If the consumer's needs are met at a satisfactory level (Bearden *et al.*, 2001; Olsen *et al.*, 2003).
PROT	Protection: Having the ability to effectively protect oneself in purchase situations, such as having the ability to say no when the product is not right for you (Bearden *et al.*, 2001; Olsen *et al.*, 2003).
RCT	Rational choice theory
ROO	Region of origin
RSA/SA	Republic of South Africa/South Africa
SO	Social outcomes: Negative or positive reactions from others (Bearden *et al.*, 2001).
UK	United Kingdom
US/USA	United States/United States of America
Usage experience	Product knowledge through experience with the product, also known as product familiarity (Dodd *et al.*, 2005).
WCSC	Wine consumer self-confidence: Used in this study to refer to the respondents' consumer self-confidence as it pertains to wine as a product.
WSCS	Wine self-confidence scale: The scale developed by Olsen *et al.* (2003) in the wine context from the Consumer Self-Confidence Scale developed and validated by Bearden *et al.* (2001).

1.12 PRESENTATION AND STRUCTURE OF THE RESEARCH

The structure of this dissertation is summarised in the following section, distinguishing seven chapters.

CHAPTER 1: THE STUDY IN PERSPECTIVE

This chapter introduces the research problem, the research aim and objectives for the study, presents a brief overview of the theoretical perspective and research design and methodology as well as the structure of the research.

CHAPTER 2: LITERATURE REVIEW

This chapter presents the theoretical background for the study as derived from previous research to define and conceptualise the various constructs relating to the research problem, aiming to provide context to the research problem and to position this research in the current literature body.

CHAPTER 3: THEORETICAL PERSPECTIVE, CONCEPTUAL FRAMEWORK AND RESEARCH OBJECTIVES

This chapter presents the theoretical perspective that was used to structure the research as well as the conceptual framework, indicating the relationship between the constructs relevant to this investigation.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

This chapter introduces the research design and methodology chosen for this investigation; the operationalisation of the relevant constructs; measures taken to ensure the quality of the research, along with considerations to ensure ethically sound practice.

CHAPTER 5: RESULTS AND DISCUSSION

This chapter presents the results of the study in accordance with the objectives of the study, supplemented with discussions of the findings concerning extant and relevant literature.

CHAPTER 6: CONCLUSION

This concluding chapter summarises the previous five chapters and reiterates the key findings of the study and their implications. Recommendations regarding further research avenues are also provided.

CHAPTER 7: REFERENCE LIST

The author would like to give credit and indicate her gratitude to the following researchers for their knowledge, hard work and research that aided in inspiring, guiding, compilation and completion of this research study and dissertation.

APPENDICES

Relevant documents to the study are provided in the appendices. They are proof of ethical approval for the study, plagiarism declaration, the study's questionnaire, the cover letter of the questionnaire, a sample of the wine study email and South African census statistics.

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CHAPTER 2

Literature Review

This chapter presents the theoretical background for the study as derived from previous research to define and conceptualise the various constructs relating to the research problem, aiming to provide context to the research problem and to position this research in the current literature body.

2.1 INTRODUCTION

A brief overview of the global wine industry and the wine industry in South Africa (SA) is provided to put the wine industry in perspective followed by literature pertaining to the wine consumer, wine as a multifaceted commodity and consequently a complex purchasing decision (Atkin and Thach, 2012); wine selection at different sales contexts and in conclusion, consumer self-confidence (CSC) when purchasing wine.

2.2 THE GLOBAL WINE INDUSTRY

Wine cultivation and production is one of the oldest industries known to mankind and dates back to 3500 B.C. (Oosthuizen, 2007). The traditional wine market spans over the Western hemisphere with the main traditional wine producers being France, Germany, Greece, Italy, Portugal and Spain (Resnick, 2008:51-52). Other countries imported wine from these countries and/or produced other alcoholic beverages themselves (Buglass, 2011; Resnick, 2008:51-52). Exporting of wine that is produced in a country on a noteworthy scale is an essential part of a healthy global economy, subsequently worldwide wine exports and imports amount to billions of dollars each year (see Figure 2.4) (BNP Paribas Wealth Management, 2017). Wine is either exported in bottles, cardboard boxes or in bulk. Non-producing countries such as the United Kingdom (UK) import wines from producing countries to satisfy their consumers' needs.

A few facts are revealed regarding the wine industry of the last three years to put the relevance of this research topic in perspective:

- In 2015, 2016 and 2017, global wine production amounted to 274.4, 268.8 and 246.7 million hectolitres, respectively (OIV, 2017a; OIV, 2017b).
- Western Europe has seen "historically" low wine production in 2017 due to adverse climate conditions (OIV, 2017b).

- In 2017, the largest wine producing countries, Italy, France and Spain produced 39.3, 36.7 and 33.5 million hectolitres, respectively. Germany had a decrease in production that amounted to 8.1 million hectolitres. Some of the smaller wine producing countries in Europe such as Portugal, Romania, Hungary and Austria reported an increase in wine production for the period of 2016 to 2017.
- The USA, the 4th largest wine producing country in the world, also had an increase in wine production and produced 23.3 million hectolitres in 2017 (BNP Paribas Wealth Management, 2017; OIV, 2017b). The USA ranks 5th in the largest surface area under vines and the per capita wine consumption is 10 litres (BNP Paribas Wealth Management, 2017).
- South American wine producing countries, Argentine, Chile and Brazil experienced an increase in wine production and produced 11.8, 9.5 and 3.4 million hectolitres of wine respectively (OIV, 2017a; OIV, 2017b).
- Australia and New Zealand produced 13.9 and 2.9 million hectolitres of wine respectively (OIV, 2017a).
- France's second largest export market is wine and spirits (BNP Paribas Wealth Management, 2017).
- Non-wine producing countries in Northern Europe like Belgium, Denmark, Finland, the Netherlands, Norway, Sweden and the UK indicated a steady climb in wine consumption from 1961 to 2006 (Resnick, 2008:53). Global wine consumption decreased from 2008 to 2014 and has since seen an increase (OIV, 2017b).

Figure 2.1 indicates wine production figures of ten wine producing countries namely Italy, France, Spain, the USA, Australia, Argentina, China, SA, Chile and Germany. Figure 2.2 indicates world wine production for the period of 2000 to 2016 and production forecast for 2017.

As indicated in Figure 2.3 the global wine production is decreasing (OIV, 2017b). However, global wine consumption is increasing steadily since the low point in 2014 (OIV, 2017b). Figure 2.4 indicates the value of the global import market and the contribution of the top four wine importing countries the UK, China, Germany and the USA.

In recent years, so-called Old World wine producing countries have experienced competition from New World wine producers and emerging markets. In addition, Old World wine producing European countries like France, Italy, Portugal and Spain, have shown an overall reduction in wine consumption from 1961 to 2006 (Agostino and Trivieri, 2014; Resnick, 2008:52) and there was a shift towards consumption of quality wines. These countries do however still have the competitive advantage of years of knowledge and experience in wine production and access to ancient native varieties (Agostino and Trivieri, 2014).

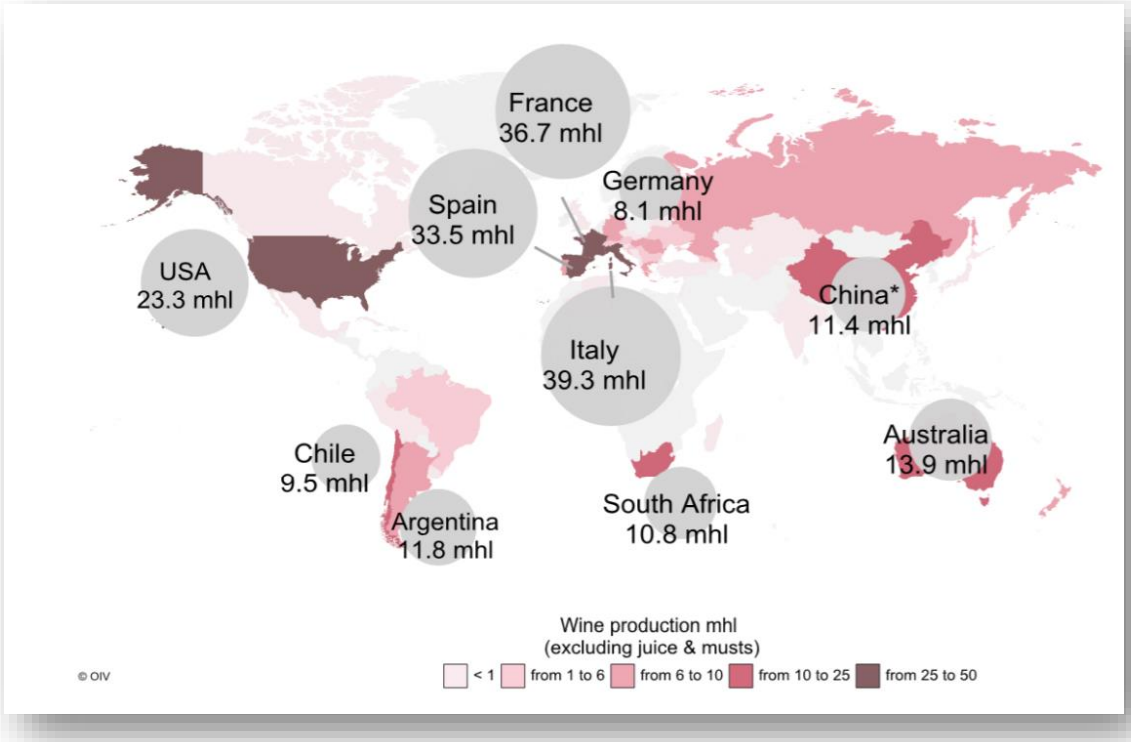

FIGURE 2.1: ESTIMATED WINE PRODUCTION FOR WINE PRODUCING COUNTRIES. REPRINTED FROM "GLOBAL ECONOMIC VITIVINICULTURE DATA", BY THE INTERNATIONAL ORGANISATION OF VINE AND WINE, 2017. COPYRIGHT 2017 BY OIV

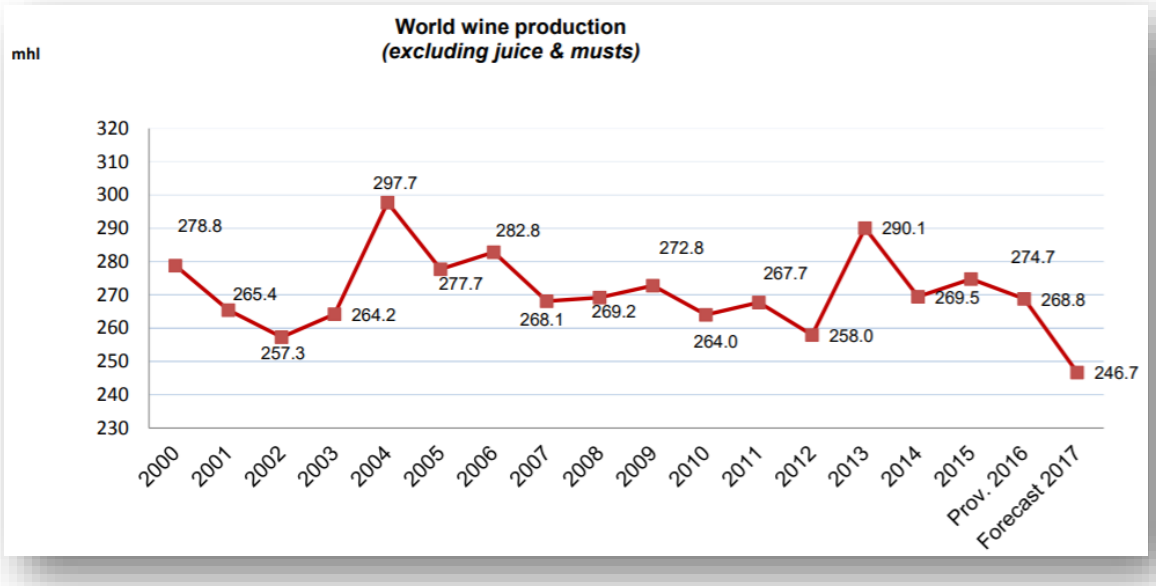

FIGURE 2.2: TRENDS IN WORLD WINE PRODUCTION. REPRINTED FROM "GLOBAL ECONOMIC VITI-VINICULTURE DATA", BY THE INTERNATIONAL ORGANISATION OF VINE AND WINE, 2017. COPYRIGHT 2017 BY OIV

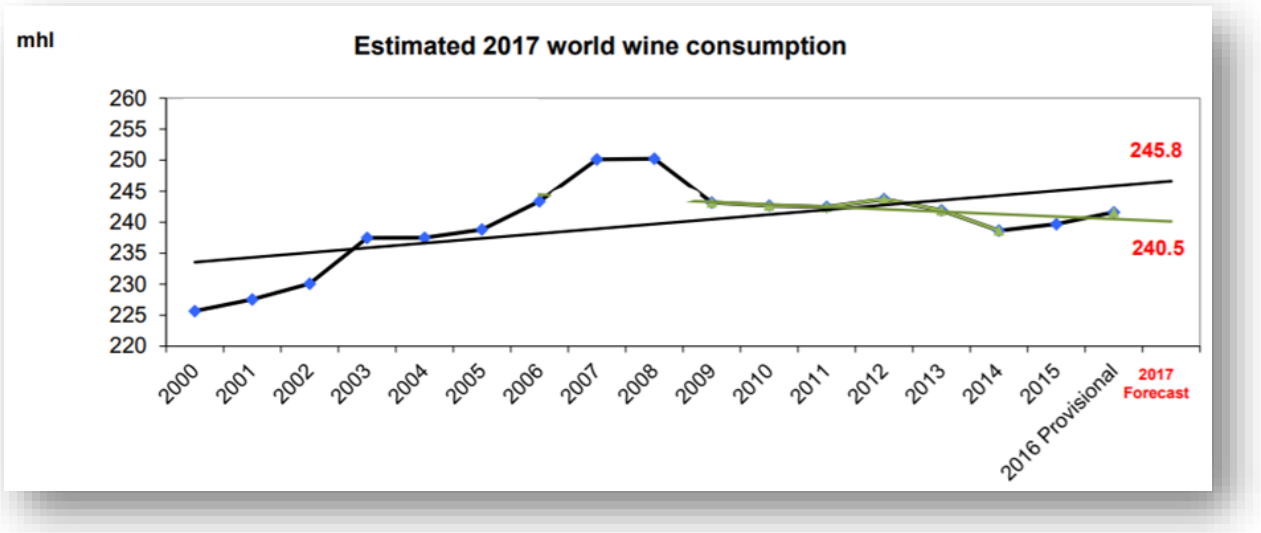

FIGURE 2.3: GLOBAL WINE CONSUMPTION FOR THE YEARS 2000 - 2017 FORECAST. REPRINTED FROM "GLOBAL ECONOMIC VITIVINICULTURE DATA", BY THE INTERNATIONAL ORGANISATION OF VINE AND WINE, 2017. COPYRIGHT 2017 BY OIV

FIGURE 2.4: GLOBAL IMPORT MARKET. REPRINTED FROM "GLOBAL ECONOMIC VITIVINICULTURE DATA", BY THE INTERNATIONAL ORGANISATION OF VINE AND WINE, 2017. COPYRIGHT 2017 BY OIV

Italy deserves to be mentioned as it is one of the oldest wine producing countries in the world and also recently the greatest wine producing country at 39.3 million hectolitres (OIV, 2017a). Subsequently, they are also one of the countries with the highest wine consumption levels globally. Since 1980, the consumption of wine in Italy started to decline and plateaued at the beginning of 2000 at 27 million hectolitres with a per capita consumption of 47 litres, similar to the wine consumption levels of Italians in 2008 (Agnoli *et al.*, 2011). In 2016, 51.7% of people in Italy preferred wine to beer (47.8%) and alcoholic aperitifs, digestive liqueurs, spirits or liqueurs (43.2%) (Istat, 2017).

Previous research regarding wine purchases and consumption, typically focussed on Australia, China, Japan, Korea, New Zealand, the USA and the UK. In a study investigating the increased wine consumption of the American population, findings indicated that a notable percentage of the sample preferred wine (39%) to beer (36%) and liquor (21%) (Saad, 2005). The findings also indicated that wine consumption increased amongst the older age groups, whilst wine consumption of the age group 30 years and younger had plateaued. In 2008, the statistics on wine consumption by females in the US showed that they were responsible for more than 70% of wine purchases and consumed about 60% of all wine sold in the US (Resnick, 2008:58). The US has been losing international market share over the last ten or so years, with countries like Australia, New Zealand and Chile gaining more of the market share (Atkin, Garcia and Lockshin, 2005a; Hussain, Cholette and Castaldi, 2007).

The UK is a non-wine producing country and a relatively large wine consumption country as it consumes approximately 4.8% of world's wine (Amienyo, Camilleri and Azapagic, 2014). UK consumers consume 21 litres of wine per capita annually and this increase can be attributed to the ease of access to wine by supermarket sales (Ritchie, 2007). The UK imported 13.6 million hectolitres of wine for the period of 2016-2017 (OIV, 2017b) from European countries as well as Australia, SA, the USA, and South America. Their most popular wine producer is Australia, where approximately 17% of wine that is purchased to take home, mostly from off-premise locations, come from Australia's vineyards (Amienyo *et al.*, 2014).

In recent years, the wine consumer has changed due to the changes in the wine market itself, for example through new and innovative technologies (e.g. fermentation processes and bottling techniques) and increased economic power of developing countries. Although wine was part of the daily diet and routine for several years in some wine producing countries (e.g. Spain, Italy and France), recent trends indicate a shift towards consuming wine on special occasions (Resnick, 2008:52-53). The wine consumer had to adapt to the changing times and consequently the behavioural patterns of the wine consumer have changed (Resnick, 2008:51). Wine consumers' demographics have also changed due to an increase in active participation of females and the younger generations as wine drinkers and new geographic wine markets such as China, India and Russia are emerging (Resnick, 2008:51). "New wine consumers" are seen as the consumers from

countries such as the USA, Japan, the Netherlands, Norway, Sweden, Finland, Poland, Russia, the Czech Republic, Singapore, Hong Kong, China and India who traditionally drank beer and spirits, but who now also consume wine (Resnick, 2008:53).

Notable, emerging trends in the wine industry over the past ten years have included attention to carbon foot printing, moving towards organic, biodynamic and sustainable vini-and viticulture practices (Christ and Burritt, 2013; Gabzdylova, Raffensperger and Castka, 2009; Pomarici and Vecchio, 2014; Schäufele and Hamm, 2017; Sogari, Mora and Menozzi, 2016; Szolnoki, 2013; Vecchio, 2013). The megatrends that are predicted to influence the global wine industry up until 2050, are changes in demographics, changes in climate and economic power, scarcity of natural resources, advances in technology and rapid urbanisation (PWC, 2015).

2.3 THE WINE INDUSTRY IN SOUTH AFRICA

The wine industry in SA started with the arrival of the Dutch in 1652 when the Dutch East Indian Company established a refreshment post at the Cape of Good Hope to supply their ships on the trading route to the East. In 1659, the first vines were brought to SA by boat and the first vineyards were small and the wine produced was of poor quality (Hughes, Hands and Kench, 1992:11; Swart and Smit, 2009:12).

Four hundred years later, the image is relatively different: In 2009, 102 000 hectares of land in SA were covered with multiple wine grape varieties (Hughes *et al.*, 1992:11; Swart and Smit, 2009:12), many of which have won international awards. SA is known as one of the New World wine producing countries and employs dissimilar winemaking philosophies than those of the Old World wine producing countries (Swart and Smit, 2009:12). In 2009, the leading grape varieties in SA were Chenin Blanc, Chardonnay, Riesling, Sauvignon Blanc, Sémillon, Viognier, Merlot, Cabernet Franc, Cabernet Sauvignon, Malbec, Mourvèdre, Pinotage, Pinot Noir and Shiraz (Swart and Smit, 2009:35).

The wine industry's contribution to SA's Gross Domestic Product (GDP) was valued at R16.3 billion in 2004 (Joubert, 2004) and in 2013 it contributed R36.1 billion or 1.2% of SA's GDP (SALBA, 2015). The wine industry is also responsible for creating close to 300,000 jobs in various sectors including agriculture, wholesale and retail, tourism and marketing (SALBA, 2015). Due to mechanisation and the related upskilling of workers, unskilled labour in the wine industry has dropped from 58% to 56% in 2013. Noteworthy, is that SA's wine export market has increased from 21% in the decade from 1999 to 54% in 2008 (DAFF, 2011).

Figure 2.5 indicates SA's three main importers (France, Italy and Portugal) and exporter destinations (UK, Germany and the Netherlands). As can be seen from this figure, SA is an exporter of bulk wine, ranked eighth and twelfth of the global wine producing countries and surface area under vines, respectively (OIV, 2017b;

SALBA, 2015). SA produced 10.8 million hectolitres of wine in 2016 (OIV, 2017a). The annual South African per capita consumption of natural wine (non-fortified and-sparkling wines) was 6.18 litres in 2010 (DAFF, 2011) and has increased to 7.73 litres in 2015 (OIV, 2017b). Trends over the last two decades however, show a decrease in consumption of wine by South African consumers due to an increase in market share of other alcoholic beverages such as beer and spirits (DAFF, 2011) and possibly the craft beer trend that has taken the world and SA by storm. South African consumers have furthermore become more price conscious and are less willing to purchase expensive wines (DAFF, 2011).

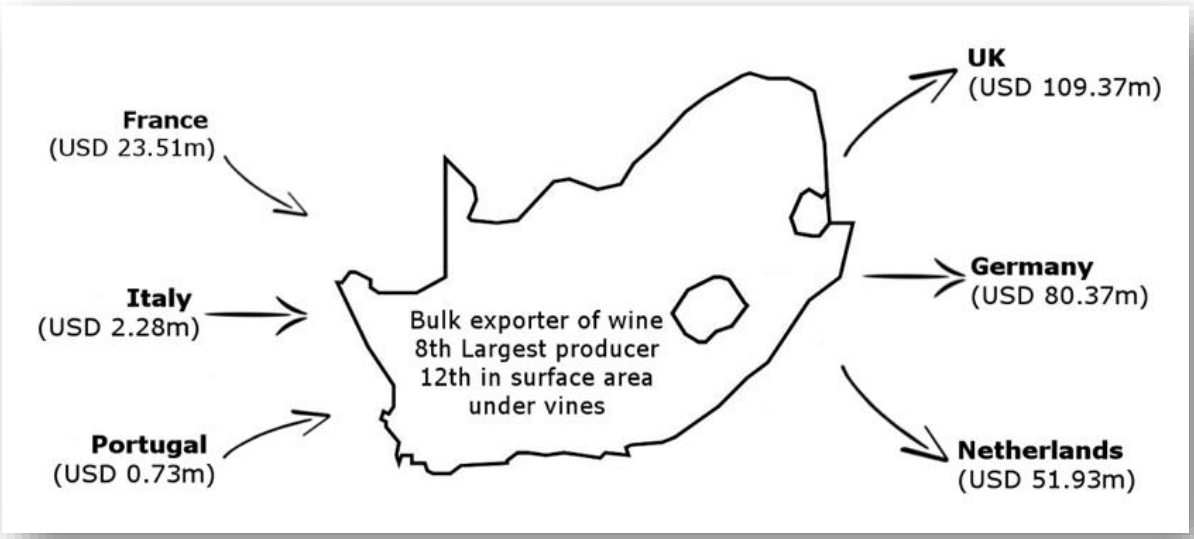

FIGURE 2.5: IMPORT AND EXPORT MONETARY VALUES OF THE SOUTH AFRCAN WINE INDUSTRY (WESGRO, 2017)

The majority of research that were conducted in SA regarding the wine industry focussed on sensory characteristics of wine, components of wine, external factors influencing the quality of wine (Du Toit, Lisjak, Marais and Du Toit, 2006; Marais, Hunter and Haasbroek, 1999; Nieuwoudt, Prior, Pretorius and Bauer, 2002; Strauss, Jolly, Lambrechts and Van Rensburg, 2001), and wine tourism (Bruwer, 2003; Demhardt, 2003; Rogerson, 2007; Tassiopoulos, Nuntsu and Haydam, 2004). Research regarding South African wine consumers' wine knowledge, their purchasing and consumption behaviour, and CSC were neglected to date (Joubert, 2004; Oosthuizen, 2007) despite wine tourism being a very important part of the South African economy where these topics are relevant.

The wine tourism industry is a welcome source of income for SA and SA boasts a well-developed wine route infrastructure (Bruwer, 2003). Local and foreign visitors spent R3.9 billion and R20.8 billion, respectively, on the Western Cape wine routes in 2008 (SAWIS, 2009) and as such contribute to increasing temporary and

permanent job opportunities (Bruwer, 2003). Besides tasting wines at wineries, local and foreign visitors also spend their time and money on other activities that include wildlife viewing, visiting historical and heritage landmarks, shopping, enjoying picnics and gourmet restaurants, hiking and enjoying the nightlife (Bruwer, 2003; Demhardt, 2003; SAWIS, 2009). Findings of a recent South African study suggest that the demographic profile of local wine tourists is female between the ages of 25 and 40 with a professional qualification and with no children (Tassiopoulos *et al.*, 2004). In a study investigating South African wine routes, it was found that the major motivations for visiting wine routes were to taste wine (94.4%), to purchase wine (94.4%) and to enjoy the scenery of the vineyards (70.6%). Respondents were also motivated to learn more about wine (47.1%) and wine tastings provide a great opportunity to do so (Bruwer, 2003). Similarly, a more recent South African study established that motivations for visiting wine routes were to taste wine (64.2%), to purchase wine (52.7%) and to socialise with their friends of family (30.3%) (Tassiopoulos *et al.*, 2004). 20% of wine sales occur at the winery itself (Bruwer, 2003) and therefore this market channel is important for the South African wine industry.

2.4 WINE CONSUMER SEGMENTS

An abundance of research has been conducted on wine consumer segments to gain a better understanding of the wine consumer and to assist marketers and retailers to improve their marketing strategies to target specific market segments effectively (Aurifeille, Quester, Lockshin and Spawton, 2002; Bruwer and Li, 2007; Bruwer, Li and Reid, 2002; Bruwer, Roediger and Herbst, 2017; Carew, Florkowski and Meng, 2017; Johnson and Bruwer, 2003; Johnson and Bruwer, 2004; Lockshin, Quester and Spawton, 2001; Lockshin *et al.*, 1997; Olsen and Newton; Palma, Cornejo, Ortuzar, Rizzi and Casaubon, 2014; Pomarici, Lerro, Chrysochou, Vecchio and Krystallis, 2017; Riviezzo, De Nisco and Garofano, 2011; Rodríguez Santos, Cervantes Blanco and González Fernández, 2006; Thach and Olsen, 2006; Thach and Olsen, 2015; Tóth and Totth, 2003; Wright, 2006; Yuan, Morrison, Cai, Dodd and Linton, 2008). Based on research, wine consumers were categorised according to their interest in, and involvement with wine. Researchers' categorisation of wine consumers depend on the research method used and the study area (Resnick, 2008:58; Yuan *et al.*, 2008) and therefore the various classifications of wine drinkers may vary. For example, over time, researchers have classified wine consumers in terms of their knowledge of wine, wine consumption and interest in wine (Charters and Ali-Knight, 2002).

A summary of some recent studies is provided in Table 2.1 at the end of this section.

Concise descriptions of wine drinker segment characteristics are listed and described in the following section:

Product Involvement: Several research studies have focussed on consumers' interest in and involvement with wine, distinguishing several groups (Barber, Almanza and Dodd, 2008a; Barber, Ismail and Dodd, 2007a; Bruwer, Chrysochou and Lesschaeve, 2017; Fountain and Lamb, 2011b; Hollebeek, Jaeger, Brodie and Balemi,

2007; Lockshin *et al.*, 2001; Lockshin and Spawton, 2001; Parment, 2013; Roe and Bruwer, 2017; Yuan *et al.*, 2008). Involvement has been positively linked with wine knowledge, as the latter increases so do wine purchasing and consumption (Hussain *et al.*, 2007). Involvement can be linked with wine knowledge in the sense that consumers who are more involved, and thus more interested in wine will be more likely to educate themselves – albeit by self-taught knowledge or attending courses about wine (Charters and Ali-Knight, 2000). Consumer involvement is generally distinguished as high-, moderate- and low involvement.

Atkin *et al.* (2005a) categorised wine consumers into medium-low involved, medium-high involved and very highly involved wine consumers, indicating that wine consumption frequency increases with an increase in interest and involvement with wine, concurring with findings of Hussain *et al.* (2007). Wine consumers with medium and higher involvement also indicated an increased awareness and preference for wine attributes such as the wine style, region-of-origin, bottle closure type, price and type of winery. They are also more willing to bring their own bottle of wine (BYOB) to a restaurant, so as not to be limited by the wine selection provided (Bruwer and Huang, 2012). Wine consumers who are less involved with the wine product, preferred blush red wines to drier wines (Atkin *et al.*, 2005a) and are less likely to BYOB to a restaurant. They would, however, bring their own bottle of wine to reduce social- and time risks, i.e. to avoid selecting the wine in front of friends and families and be able to spend more time enjoying the company of friends and family rather than to contemplate choosing wine from a list that they might be less familiar with (Bruwer and Huang, 2012). Although both highly involved and less or low involved (novice) wine consumers are inclined to rely on price as an indication of wine quality, it is more typical of less involved wine consumers (Quester and Smart, 1998). Low involved wine consumers also tend to be more price sensitive when a bottle of wine exceeds a particular price threshold, e.g. $15 per bottle (Barber *et al.*, 2008a).

Neuninger, Mather, Duncan and Aitken (2016) segmented wine consumers into five groups based on their level of wine involvement and their behaviour around wine awards. This mixed-method study aimed to distinguish between wine consumers based on their behaviour, knowledge and their reliance on wine awards when purchasing a wine. The five groups are displayed in Figure 2.6.

Wine knowledge: In conjunction with wine involvement, positive relationships between wine knowledge, wine consumption and purchases were reported (Hussain *et al.*, 2007). Studies differentiate consumers according to their subjective and objective wine knowledge (Table 2.1 indicates more knowledge segments).

- *Experts/connoisseurs* like to discuss wine (Higgins, McGarry Wolf and Wolf, 2014) and they educate themselves in the subject of wine (Spawton, 1990). They drink wine regularly or daily (Spawton, 1990) and they purchase more fine wines (Spawton, 1990). They rely the most on the regional extrinsic cue (Atkin and Johnson, 2010). Vintage is also more important to more knowledgeable

Table 5. Behaviour profiles of the different involvement segments around wine awards.

Behaviour profiles around wine awards
ECs are wine consumers who have institutional experience with wine and/or have received training in this product category. This group is mainly influenced by wine writers and they purchase frequently in bulk via the internet, wineries, or wine speciality stores. However, they are attentive to 'trophy winners' (the highest wine award category) and try sometimes wine with a gold medal.
HICs are knowledgeable about wine and they appear not to be attracted by awards. They like to experiment and to try different types of wine and they are most likely to be influenced by the media, salespeople, friends and hospitality providers.
MICs are less knowledgeable than HICs and more knowledgeable than LICs. They are likely to use awards when choosing unfamiliar wine, principally as a means of quality control (e.g., when selecting wine as a gift). They often seek the advice from sales peoples in speciality wine stores and use well-known awards.
LICs are primarily price driven. A gold medal influences them when under time pressure and when the price of the wine is reduced. Purchase their wine in the supermarket and they pay attention to "fancy" labels.
NWDs are young wine consumers who are influenced by parents or peers, have not established preferences and often use price as the main determinant of their purchase. This group has no knowledge about wine awards. However, they sometimes use gold medals because they found them 'pretty and shiny'.

FIGURE 2.6: INVOLVEMENT SEGMENTS AND THEIR BEHAVIOURAL PROFILES AROUND WINE AWARDS (NEUNINGER *ET AL*., 2016:618)

consumers (Atkin and Johnson, 2010) who generally prefer less sweeter and more dry wines (Blackman, Saliba and Schmidtke, 2010). Expert wine consumers prefer to shop at wine speciality stores, wineries or auctions (Spawton, 1990).

- The *aspirational* drinkers, purchase and consume wine for the associated fashion and status aspects. As such, brands are very important to them (Spawton, 1990).

- *New wine drinkers'* wine preferences are not yet established: they are influenced by their peers and the consumption situation/ occasion (Spawton, 1990). They have limited knowledge of wine, and mostly, price determines the wines they choose (Spawton, 1990), while brand is particularly important to them (Atkin and Johnson, 2010). These wine drinkers prefer wines with more residual sugar, thus sweeter wines (Blackman *et al.*, 2010).

Resnick (2008:65-68) integrated the above-mentioned classifications and assigned witty names to the wine consumer categories:

- 40% of wine consumers are for example said to belong to the so-called *enthusiasts*, *satisfied sippers* or *at-homers* group, who are generally middle-class suburban individuals who have a high product involvement as wine forms an important part of their daily lives (Lockshin *et al.*, 1997). They are curious about wine, learn as much as they can about wine by reading speciality magazines and talking to sales people in retail stores (Lockshin *et al.*, 2001). They also share what they have learned with their friends and families (Resnick, 2008:65). This group's disposable income is small to moderate,

and they prefer to drink at home rather than at more expensive on-premise locations such as restaurants.

- In more recent studies, wine drinkers who are sensitive about the status associated with expensive and respected wine brands are referred to as so-called *adventurous connoisseurs* and *image seekers* (Resnick, 2008:65-66). As sophisticated wine drinkers, they generally have a higher disposable income, and high product involvement. They will typically consume wines from both the Old- and the New World (Resnick, 2008:65-66) and they are more likely to make use of product information than wine consumers with lower product involvement or less product knowledge (Lee and Lee, 2011).
- Conversely, *sociable promotion-seekers*, *bargain hunters* and *savvy shoppers* usually seek wines that are on promotion. They are frequent wine drinkers and focus their efforts on finding good price-quality wines (Resnick, 2008:66).
- The *traditionalists* and *weekly treaters* are wine drinkers with a low self-confidence when selecting wine and who often make simpler purchasing decisions by opting to select a familiar traditional wine from an Old-World country or a wine with a fun label. These consumers are more risk averse and as such would rather purchase a well-known brand than to try something new (Resnick, 2008:67).
- The so-called *international overwhelmed consumer* are those overwhelmed by the selection process, especially when having to purchase a wine for a special occasion (Resnick, 2008:67-68). Uncertainty is increased by the large variety of wine including the labels, vintages, brands, grape varieties and prices. These consumers are not limited to any specific demographic background.

Wine tourists/Winery visitors: Even though wine tourists are not the main focus of the study, they deserve to be mentioned as they are wine drinkers and/ or wine buyers and therefore wine consumers. Substantial research focussed on wine tourism and tourists (Brown and Getz, 2005; Charters and Ali-Knight, 2002; Galloway, Mitchell, Getz, Crouch and Ong, 2008; Hojman and Hunter-Jones, 2012; Mitchell and Hall, 2001; Neilson and Madill, 2014; Sparks, 2007; Tassiopoulos *et al.*, 2004; Velikova, Charters and Cogan-Marie, 2016) and rightly so, as the wine tourism industry in SA constituted R6 billion in 2016 (Mokhema, 2016; VINPRO, 2018). In California, in the US, for example, the wine industry contributes $1.6-2 billion annually to their economy (Karlsson, 2017; Mintel Group, 2017).

Wine tourists were categorised or segmented by *age* (Corigliano and Pastore, 1996; Dodd and Bigotte, 1997) and *income* (Dodd and Bigotte, 1997). Other classifications include *frequency of visits to wineries, knowledge of wine* and *wine interest/ involvement*. Wine tourist categories in terms of wine interest or level of involvement (from lowest involvement to greatest involvement) include *curious tourists, wine interested* and *wine lovers* (Hall and Macionis, 1998 in Butler *et al.*, 1998), *casual tourists* who are interested in learning about wine and wineries but do not have great wine knowledge, and the *sophisticated drinker* (Ali-Knight,

1999). Most wine consumers/ tourists are believed to fall within the middle groups (Ali-Knight, 1999; Charters and Ali-Knight, 2002). In a South African study, wine tourists were grouped according to their frequency of visits to wineries and the findings indicate that tourists visiting wineries more than four times a year formed the majority (37.7%), with wine tourists who visit wineries up to three times a year forming the second largest group (35.7%) (Tassiopoulos *et al.*, 2004). In addition, certain demographic groups, namely males, 25 to 34-year olds, those with a tertiary education, and couples with children younger than six years of age are more likely to visit wineries (Tassiopoulos *et al.*, 2004). Velikova *et al.* (2016) also found that the most frequent wine tourists had earned Bachelor's degrees and were therefore higher educated consumers. The same study could not find a significant difference in males' and females' frequency of visitation of wineries. Bruwer (2003) also found that the majority of wine tourists in SA fall within the wine lovers' segment and are more likely to purchase wine during winery visits, suggesting that South African wine consumers' involvement with wine deserves more attention regarding refining market segmentation.

Based on the classifications in Table 2.1, all the researchers used values, lifestyle, frequency of wine consumption or purchasing criteria to distinguish between three and five categories of wine consumers.

TABLE 2.1: WINE CONSUMER SEGMENTS SUGGESTED IN PREVIOUS RESEARCH

SEGMENT	AUTHOR/S	SEGMENTS AND SEGMENT DESCRIPTIONS
Individual values	Olsen and Atkin (2016)	Four segments: 1. *Self-enhancement:* fun loving; driven for personal success; high involvement; highest subjective knowledge; more variety-seeking; most wine innovativeness; prefer external information search*. 2. *Conservatism:* traditional and security-based values; less involved; low subjective knowledge; less variety-seeking and less adventurous; prefer external information search less. 3. *Self-transcendence:* like to try wines from various countries; high awareness of environment and humanity; medium involvement; medium subjective knowledge. 4. *Openness to change:* less subjective knowledge than group 1; less likely to use external information search; enjoy novelty; pleasure-seeking. *External information sources: recommendations from friends and online wine sources
Individual values	d'Hauteville (2003)	Five segments: 1. *Hedonistic and involved occasional consumers:* drink wine most frequently (along with group 3); believe wine is good for health; pleasure-seeking; high interest; wine is seen as expensive and fit for social occasions; well-off; predominantly male; hedonistic values are important; socially open. 2. *Non-consumers:* do not like wine; do not believe wine is good for health; predominantly females and younger consumers; middle-income; security and respectability values are important; less social. 3. *"There is no meal without wine":* drink wine most frequently (along with group 1); wine forms part of daily meals; wine is seen as a "thirst-quenching drink"; wine is not seen as expensive; include modest income households; integrative values are important; predominantly male; 45 years and older. 4. *Uninvolved occasional consumers:* predominantly female; younger consumers; low to none involvement; prefer other beverages; like the taste of wine; seeking good times and like to socialise; more well-off; hedonistic and integrative values are important. 5. *Occasional drinkers by tradition:* low to none involvement; prefer other beverages; like the taste of wine; modest households, predominantly males, older consumers; less social; socialised in wine from a young age; respectability is important.
Wine purchasers/ buyers	Seghieri, Casini and Torrisi (2007)	Four segments: 1. *Usual buyers:* no involvement; not price sensitive; fixed habits are important; aged around 60 years; high consumption; purchase wine weekly; make wine choice before entering the store; not variety-seeking. 2. *Rational buyers:* low involvement; some interest in variety-seeking; price sensitive; price-to-quality very important; spends time roaming shelves; low on fixed habits; aged around 43 years; moderate consumption; high purchase frequency. 3. *Professionals of promotions:* promotions are important; low to none involvement; no fixed habits; lowest consumption and purchase frequencies; very price sensitive. 4. *Interested consumers:* high product involvement; variety-seeking; eager to pay more for quality wines; predominantly male; aged 45 years; high purchase and consumption frequencies; not price sensitive.

TABLE 2.1 continued…

SEGMENT	AUTHOR/S	SEGMENTS AND SEGMENT DESCRIPTIONS
Wine purchasers/ buyers	Aurifeille *et al.* (2002)	Five clusters: 1. *Cluster 1:* largest group; low involvement; average price-point; more brand aware; purchasing frequency is high. 2. *Cluster 2:* lowest price-point; moderate purchasing frequency. 3. *Cluster 3:* smallest group; highest price-point; below average wine and brand involvement. 4. *Cluster 4:* second highest price-point; very similar to cluster 3. 5. *Cluster 5:* second lowest price-point; average involvement; high purchasing involvement.
Wine knowledge	Hussain *et al.* (2007)	Four groups: 1. *Clueless:* prefer cheaper wines but will purchase more expensive wines on occasion; ignorant of wine. 2. *Little knowledge:* prefer mid-price-point; occasionally purchase wine cheaper or more expensive. 3. *Some knowledge:* similar to group 2. 4. *Knowledgeable*: high consumption of inexpensive and expensive wine.
Wine consumption of luxury brands	Hall (2016)	Four clusters: 1. *Cluster 1:* high disposable income; influenced by celebrity culture and product placements in films; conspicuous wine consumption important; low wine knowledge. 2. *Cluster 2:* know more about wine; drink wine for enjoyment thereof; more frequent consumption; wine connoisseurs/ experts. 3. *Cluster 3:* lower objective knowledge than cluster 2; do not drink wine immediately but keep/age wine. 4. *Cluster 4:* little objective knowledge; low consumption frequency; purchase luxury wines as status symbol.
Wine consumption	Kelley, Hyde and Bruwer (2015)	Three groups: 1. *Super core wine drinker:* drink wine more than a few times a week. 2. *Core wine drinker:* consumer wine weekly or more. 3. *Marginal wine drinker:* drink wine less than once per week.
Wine consumption	Viot and Passebois-Ducros (2010)	Four groups: 1. *Very occasional consumers:* drink wine les than one to two times per week; lowest involvement; lowest knowledge; 30-45 years of age. 2. *Young occasional consumers/discoverers:* aged 18 to 29; drink wine weekly or more; average knowledge; high involvement; eager to learn more about wine. 3. *Older occasional/routine consumers:* aged older than 45; high knowledge; average involvement. 4. *Expert/regular wine drinkers:* drink wine daily or almost daily; aged older than 45; highest subjective knowledge and involvement.
Wine lifestyle segments	Bruwer and Li (2007)	Five groups: 1. *Conservative, Knowledgeable Wine Drinkers:* older wine consumers; good education; affluent; frequent wine consumption, frequents a retail store for wine purchases; willing to purchase expensive wines. 2. *Enjoyment-oriented, Social Wine Drinkers:* younger consumers, mostly females, wine is seen as sophisticated; wine consumption occurs when going out – often with friends; value for money is important; stick to familiar brands. 3. *Basic Wine Drinkers:* mostly males; enjoy wine; stick to familiar brands; no effort is put into information search; prefers red over white. 4. *Mature, Time-Rich Wine Drinkers:* males, older consumers, years of usage experience; prefer familiar brands; have more time to do information searches and learn more about wine. 5. *Young Professional Wine Drinkers:* predominantly female; information search critical when buying wine; high interest; professional employment.

2.5 WINE AS A COMPLEX CONSUMER DECISION

Wine cues have been divided into slightly different categories in various research studies dealing with wine choice (Charters and Pettigrew, 2007; Kallas, Escobar and Gil, 2013; Sáenz-Navajas, Ballester, Pêcher, Peyron and Valentin, 2013a). Wine has been categorised into *wine types* (red, white, rosé, sparkling and liquored wines) and *wine quality indicators* (Kallas *et al.*, 2013). In addition, *consumer-related factors* and *product-related factors* are relevant when purchasing wine (Charters and Pettigrew, 2007; Prescott, Young, O'Neill, Yau and Stevens, 2002; Sáenz-Navajas *et al.*, 2013a). Consumer-related factors focus less on the wine itself and rather refer to consumers' previous experiences with wine drinking, i.e. their "drinking histories" including wine consumption, familiarity, knowledge and expertise, and the demographic characteristics age, gender and culture/ population group, and how these factors relate to consumers' perceptions of wine quality (Bruwer *et al.*, 2011; Melo, Delahunty, Forde and Cox, 2010b; Parr, 2000). For example, female wine consumers and younger wine consumers are more concerned about selecting the wrong wine (Barber *et al.*, 2006), whilst Forbes, Cohen and Dean (2008) concluded that females are not more concerned or intimidated by the wine purchase decisions compared to men. Both males and females evaluate more or less two to three wine cues when selecting a wine (Forbes, Cohen and Dean, 2010).

Consumers may for instance be hesitant and fear the loss of admiration of others when selecting the "wrong" wine. As a result, researchers agree that wine selection is a complex decision (Atkin and Thach, 2012; Barber *et al.*, 2007b; Johnson and Bruwer, 2004; Lockshin and Hall, 2003) and that consumers' self-confidence would be highly relevant when making a complex purchase decision (Erasmus *et al.*, 2015; Gluckman, 1990; Olsen *et al.*, 2003) as consumers may feel "extremely intimidated" when selecting wine (Barber *et al.*, 2007b; Gluckman, 1990; Olsen *et al.*, 2003). Furthermore, self-confidence and subjective experience can mitigate the decision conflict (Barber *et al.*, 2007b; Gluckman, 1990; Olsen *et al.*, 2003).

2.5.1 Unique constraints associated with wine purchases

Purchasing wine is not a simple decision (Atkin and Thach, 2012; Barber *et al.*, 2007b; Forbes *et al.*, 2010; Lockshin and Hall, 2003; Lockshin *et al.*, 2006; Seghieri *et al.*, 2007), since the main characteristics of wine, such as its sensory attributes and quality can only be assessed after the purchase was made and when the product is consumed (Atkin and Johnson, 2010; Barber, 2008; Barber *et al.*, 2006; Chaney, 2000; Jaeger, Danaher and Brodie, 2009). This is a "unique constraint" of wine purchasing (Barber *et al.*, 2007b) – even though it also applies to other food products such as artisanal preserved bottled food products. In addition, there is wide variety of wine available on the market (Lockshin, 2005; Robinson, 2016; Wine Institute, 2004) and as a result multiple wine cues such as brands, label designs, grape varieties and vintages apply (Barber *et al.*, 2006; Kallas *et al.*, 2013; Lacey *et al.*, 2009) for consumers to use, when they may, or may not have "well-defined preferences" (Novemsky, Dhar, Schwarz and Simonson, 2007).

2.5.2 Associated risk when purchasing wine

Wine consumers may experience risk such as physical-, functional-, economic- or social risk when purchasing wine (Mitchell and Greatorex, 1988), for example: Is the wine fit for the purpose it was bought for, i.e. does it pair well with food (functional); embarrassment in the presence of your peers when selecting a wine that does not meet expectations (social); concern about the price of the wine (financial); and the effects of alcohol consumption and chemicals within the wine (physical) (Mitchell and Greatorex, 1989). Many studies have investigated perceived risks and risk reducing strategies in the wine selection and purchase situations (Atkin and Thach, 2012; Bories, Pichon, Laborde and Pichon, 2014; Johnson and Bruwer, 2004; Lacey *et al.*, 2009; Locander and Hermann, 1979; Mitchell and Greatorex, 1988; Mitchell and Greatorex, 1989; Outreville and Desrochers, 2016). Since this is not the main focus of the study, it merely emphasises the importance of investigating the wine knowledge of consumers and their CSC when selecting wine.

When confronted with a complex wine purchase decision, wine consumers can revert to an *external* information search (i.e. information sources such as wine labels), and an *internal* information search, i.e. own prior knowledge or familiarity with the product (Lockshin and Hall, 2003).

2.5.3 Diverse information sources and quality indicators

Wine as a product category can be referred to as "an information-intensive experience product" (Bruwer *et al.*, 2011) due to the numerous and magnitude of available information sources. This in turn, creates "decision conflict between competing characteristics of the wine products offered" (Barber *et al.*, 2007b) and consumers have to make "trade-offs" between the desirable attributes of the wines available (Novemsky *et al.*, 2007) and consequently, selecting wine is a complex decision (Bruwer *et al.*, 2002; Johnson and Bruwer, 2004; Lacey *et al.*, 2009). The external information search includes various information sources, e.g. published, marketing and advertising material. These are extensively discussed in section 2.8.2.1. For this section, emphasis is placed on wine quality and its relation to extrinsic and intrinsic cues or attributes during the wine purchase decision. A vast variety of wines is available for consumers to choose from, all differing regarding intrinsic and extrinsic cues. Therefore, consumers' self-confidence to choose the best product for an occasion may dwindle (Atkin and Thach, 2012).

In addition, the selection of wine, if based on quality, can differ depending on the **occasion** it is for or the type of sales context (also referred to as consumption situation) within which it is chosen (Bruwer *et al.*, 2002; Bruwer *et al.*, 2011; Hall, Lockshin and O'Mahony, 2001; Jaeger, Danaher and Brodie, 2010; Lockshin and Hall, 2003; Quester and Smart, 1998). For example, in a restaurant, the primary driver of wine selection is taste, although it might not be so for consumption at home (Bruwer *et al.*, 2011; Hall *et al.*, 2001; Jaeger *et al.*, 2010).

Product-related factors that may influence wine purchases, are divided into *intrinsic* and *extrinsic* factors/ attributes/ cues (Charters and Pettigrew, 2007; Jover, Montes and Fuentes, 2004).

Intrinsic cues refer to "the objective quality" of wine and the production processes thereof. Thus, intrinsic cues comprise alcohol content (alcohol by volume), grape varieties, quality, style, taste and vintage varieties, i.e. what is inside the bottle (Atkin and Johnson, 2010; Balestrini and Gamble, 2006). These cues can only be assessed once the wine has been opened and consumed (Elliott and Cameron, 1994). Consumers who have education and training in wine possess more extensive objective knowledge about wine and therefore are more inclined to rely on intrinsic cues such as taste and style that are more difficult to judge (Bruwer and Buller, 2012).

To understand the importance of wine cues and their influence on wine selection, one has to address the role that **desired wine quality** plays when selecting a wine: wine quality is indisputably an intrinsic wine cue (Atkin and Johnson, 2010; Balestrini and Gamble, 2006). Wine quality and the taste of the wine go hand in hand as wine is referred to as a so-called "experience product" (Bertuccioli, 2010b; Bruwer *et al.*, 2011; Kallas *et al.*, 2013; Mueller, Osidacz, Francis and Lockshin, 2010b). Hence, the primary consideration for selecting a specific wine, is taste (Lockshin and Hall, 2003). Inarguably, marketers tend to exploit consumers' perception of wine quality and use place-of-origin/ geographic origin as an indicator of wine quality (Van Zanten, Bruwer and Ronning, 2003) in marketing strategies of especially smaller and medium sized wineries (Atkin and Johnson, 2010; Van Ittersum, Candel and Meulenberg, 2003).

Consequently, wine consumers more often than not have to rely on extrinsic cues, such as price and brand when discerning wine quality (Balestrini and Gamble, 2006; Jacoby and Olson, 1985; Lockshin and Rhodus, 1993; Zeithaml, 1988).

Extrinsic cues pertain to "subjective quality" of wine and refer to brand name, country of origin (COO) or region of origin (ROO), price, packaging, label, awards or accolades, promotional material (e.g. Best Value wines), history of wine maker and region, wine company, label colours, food and wine pairing, situational use, type of person that would like the wine, shelf position and number of facings (Balestrini and Gamble, 2006; Jacoby and Olson, 1985; Kallas *et al.*, 2013; Lockshin *et al.*, 2006; Lockshin and Spawton, 2001; Robinson, 2016; Thomas and Pickering, 2003; Zeithaml, 1988).

For Japanese consumers, price seem to be the most important extrinsic cue when purchasing wine (Bruwer and Buller, 2012). Conversely, geographical origin of the wine seem most important for Australian and New Zealand consumers (Atkin, Garcia and Lockshin, 2006). Other studies have also found that consumers link quality to the origin of the wine. Thus, unfamiliar wine brands of a region with high perceived quality wines, can benefit from the region's reputation (Atkin and Johnson, 2010; Duhan, Kiecker, Areni and Guerrero, 1999;

Jarvis and Rungie, 2002; Papadopoulos and Heslop, 2002). When consumers are uncertain of wine quality, or as part of risk-reducing strategies, they are inclined to make use of "safe" brand names, indicating consistent quality, or brands signifying positive past experiences (Bruwer and Wood, 2005; Lockshin and Spawton, 2001; Spawton, 1991). Female wine consumers rely more on awards, price, familiar brands, label artwork or simply select a random bottle of wine when uncertain which wine to choose (Atkin, Nowak and Garcia, 2007). Quality perception of wine can also be instilled through packaging and labelling of the bottle (Spawton, 1991). Researchers therefore concur that several consumers have to rely on extrinsic cues, i.e. the wine cues outside of the bottle, to make a judgement of the quality of the contents of the bottle and to guide their wine selection and purchasing decisions (Lockshin and Hall, 2003; Lockshin and Halstead, 2005; Lockshin *et al.*, 2006; Remaud and Lockshin, 2009).

In an effort to catch the eye of consumers, wine producers differentiate between the taste and quality of their wine for marketers to promote. This, coupled with the existing information sources and intrinsic and extrinsic cues can lead to an information overload for consumers (Bruwer, 2004; Szolnoki, Herrmann and Hoffmann, 2010). Understandably then, most consumers do not utilise all the information at their disposal when selecting a wine (Chaney, 2000; Lockshin and Hall, 2003) to simplify the product alternatives and decision. Wine purchase consumers hence often create "shortcuts", using trusted or reputable brands, or region-of-origin to simplify their decisions (Atkin and Johnson, 2010; Bruwer and Wood, 2005).

2.6 WINE SELECTION PROCESS

Wine consumers drink wine for multiple reasons, such as for the enjoyment thereof (Charters and Pettigrew, 2008). UK wine consumers perceive wine as a classy and sophisticated beverage, more so than other alcoholic beverages (Ritchie, 2007). Indisputably, consumers purchase wine to gain certain benefits from wine that depend on the role of wine in the consumer's culture, the image of wine compared to other alcoholic beverages in the mind of the consumer, the role of wine in the major religion of that country (Spawton, 1991), and environment where the wine will be consumed and for which occasion (Ritchie, 2007). What is important to note, is that consumers' wine purchase decisions are influenced if the consumption thereof occurs publicly or privately (Ritchie, 2007). Thus, the context, location or situation where a product is bought and/ or consumed will influence consumers' wine consumption and purchasing behaviour (Agnoli *et al.*, 2011; Lockshin and Hall, 2003; Quester and Smart, 1998).

Several factors therefore eventually affect consumers' wine selection process (Barber *et al.*, 2007b) and the following sections discuss the influence of the sales context of the wine purchase, and demographic characteristics of the wine consumer (i.e. age, gender, income and population group) on their wine selection.

2.6.1 Wine selection at different locations

In a study investigating alcoholic beverage consumption situations, it was found that the constituents of the consumption situation are more important in the selection of an alcoholic beverage than the alcoholic beverage itself (Agnoli *et al.*, 2011). Wine selection is hence location/ situation and occasion dependent (Agnoli *et al.*, 2011; Lockshin and Hall, 2003; Quester and Smart, 1998).

Two foremost wine purchasing locations are distinguished, namely *on-premise locations* and *off-premise locations* that influence consumers' purchase decisions in diverse ways; one being the desired product attributes. Also important, is the environment where the wine will be consumed, i.e. identifying whether the wine is purchased for *personal consumption at home*, or to be *enjoyed with others in public* (e.g. with friends, colleagues, household members or others in bars, discos, and public eateries such as restaurants and pizzerias), or purchased as a gift (Agnoli *et al.*, 2011; Fountain and Lamb, 2011a; Ritchie, 2007). For example, at restaurants alcoholic beverages are consumed as part of a meal, influencing the type and quality of wine selected. As a result, the importance of investigating the influence of the location on wine selection cannot be disregarded.

2.6.1.1 Off-premise locations: purchase and consumption

Off-premise, off-trade or off-licenced wine purchasing situations refer to wine selection at locations such as retail shops, liquor stores and wine speciality stores and even wine in retail shops such as supermarkets (Jenster and Jenster, 1993). Off-premise locations increased by 30% in the years 1975-2001 (Nielsen, 2005) and up to 70% of wine sales occur in supermarkets (Velikova, Murova and Dodd, 2013b).

The majority of wine sales in the world occur at off-premise locations – specifically at supermarkets/ retail stores (Balestrini and Gamble, 2006; Bruwer and Huang, 2012; Forbes, 2012; Lockshin and Corsi, 2012; Ndanga, Louw and Van Rooyen, 2008; Velikova *et al.*, 2013b). The selling of wine in retail shops has "demystified" wine shopping to the wider adult population and especially female wine consumers as wine purchasing was a male dominated activity for several years (Bruwer *et al.*, 2011; Mitchell and Hall, 2004; Nicolson, 1990; Ritchie, 2007). Previous studies have found that wine purchases at retail shops form part of routine grocery shopping (Barber, 2009; Jennings and Wood, 1994; Ritchie, Elliott and Flynn, 2010). Consumers do however perceive it to be less prestigious to purchase wine in a retail shop than to do so at a speciality store that tend to have a greater variety of imported wines and where personnel generally have more knowledge of wine (Ritchie, 2007). It is psychologically easier to select and purchase a wine at off-premise locations (i.e. in retail outlets and specialty stores) (Lockshin and Corsi, 2012) due to the availability of tangible product cues such as labels, brand name and marketing material that could aid in the information acquisition process (Ritchie, 2007) including the assistance or recommendations of sales personnel. There is

more time at off-premise locations to peruse the shelves and select the most appropriate wine than in a restaurant (Rasmussen and Lockshin, 1999). Also, it is perceived as less "risky" to buy a wine for oneself than to buy a wine for or in front of someone else (Olsen *et al.*, 2003).

A Dominican study found that most wine consumers purchase wine at supermarkets, followed by liquor stores, whilst a small percentage of the sample purchased wine at privately owned stores. Males prefer to purchase wine at liquor stores more so than females (Velikova *et al.*, 2013b). Some studies suggested that females purchase wine at supermarkets more so than males (Jennings and Wood, 1994; Ritchie, 2007) although a more recent study reported differently (Forbes, 2012). Seghieri *et al.* (2007) found that many wine purchase decisions are made at the point of sale (POS) and as such, marketers and retailers should pay special attention to how they stock and display wines on shelves. In additon, they could present the opportunity for wine tastings to ease the purchase decision and to educate the consumers (Barber *et al.*, 2008a).

2.6.1.2 On-premise locations: purchase and consumption

On-premise consumption refers to wine selection and purchases at locations where the wine is enjoyed in situ, e.g. restaurants, hotels and bars (Bruwer *et al.*, 2011). Although a smaller percentage of wine is purchased in restaurants (Bruwer and Huang, 2012) wine consumers seem to be more intimidated to purchase wine at on-premise locations like a restaurant (Lockshin and Corsi, 2012). In this scenario, little information is available apart from information on the wine list, and limited informational cues, such as label information (Bruwer *et al.*, 2011). The host might be intimidated to ask for recommendations from waiters or sommeliers in the presence of their guests, or might not receive adequate guidance from them (Lockshin and Corsi, 2012). When the wine decision is made in the presence of others, it may involve social benefits or consequences (Atkin *et al.*, 2007).

Demographic differences exist in terms of wine purchasing in restaurants. More males are inclined to make the wine selection at restaurants than females, and consumers who purchase wine at restaurants and hotels generally have higher incomes and higher levels of education (Velikova *et al.*, 2013b). Wine is often ordered with dinner at on-premise locations (Charters and Pettigrew, 2008; Schamberg, 2002) and these decisions are very important to highly involved consumers (Jaeger *et al.*, 2010) as it entails wine pairing with food so as to enhance the flavours of the food, to refresh the palate and for the associated symbolic value (Charters and Pettigrew, 2008). When selecting a wine at a business dinner, wine consumers tend to stick with brands they know (Olsen *et al.*, 2003) to reduce the risk of selecting a wine that their peers will disapprove. Lockshin and Corsi (2012) found that wine consumers usually learn more about wine in on-premise locations that could be applied when purchasing wine at an off-premise location for personal consumption. To summarise, Jaeger *et al.* (2010) explains: "wine selection decisions made in restaurants are a result of multiple influences being taken into consideration".

2.6.2 Wine selection of different demographic groups

Over time, research has shown that wine selection differs amongst various demographic- and lifestyle groups in different contexts (Atkin *et al.*, 2007), which are discussed in the following section.

2.6.2.1 Gender differences

Research and perceptions surrounding wine are contrasting, inevitably influencing consumers' wine selection and consumption. Men used to perceive wine as a *feminine beverage*, deterring them from drinking it (Barber, 2009; Mitchell and Greatorex, 1988; Spawton, 1990), whilst females perceived wine *selection* as a male activity (Mitchell and Hall, 2004; Nicolson, 1990). Selecting a wine and preparing a meal for a special occasion were perceived by females to be male activities and were conducted in such a fashion to display status, to enhance a meal and to impress others (Bruwer and Johnson, 2005; Nicolson, 1990; Sbrocco, 2003), rather than to focus on vintages or ratings when selecting the wine (Resnick, 2008:60). In the case where both the husband and the wife are highly interested and/or knowledgeable about wine, wine selection and purchasing were conducted equally by both parties (Ritchie, 2007). Since then, women have become the predominant wine buyers over time, although men still consume the most wine (Bruwer and Johnson, 2005; Bruwer and Li, 2007; Bruwer *et al.*, 2011).

According to research, males and females purchase wine weekly or two-weekly, and both genders purchase wine equally from supermarkets (Forbes, 2012; Ritchie, 2011) although men prefer to purchase wine at liquor stores (Velikova *et al.*, 2013b), whilst women tend to buy wine at retail shops (Barber, 2008). Indications are that females tend to purchase wine at supermarkets along with their groceries for consumption at home for their households (Bruwer and Johnson, 2005; Bruwer and Li, 2007; Sbrocco, 2003) and to consume with friends, although they consider it as a drudge when part of general grocery shopping (Ritchie, 2007).

According to the most recent available research, females prefer to gain information at the point-of-sale (POS) and include personal sources such as recommendations from the sommelier or salesperson, and advertising material on the shelves (Atkin *et al.*, 2007; Barber, Dodd and Kolyesnikova, 2009a). They are also inclined to use all immediately available information to make the purchase decision (Barber, 2009), whilst men, assess more sources of information than females, also spending more time reading about wine (Atkin *et al.*, 2007; Ritchie, 2007) rather than to use POS information (Atkin *et al.*, 2007; Barber, 2009). Complex labels are seemingly better suited for males (Forbes *et al.*, 2008). It seems as if new wine drinkers, females, low-income consumers and younger wine consumers add more importance to the image, picture or logo on the label (Thomas and Pickering, 2003). Although males were found to be more willing to spend more money on good quality wine than females (Ndanga *et al.*, 2008), low involved males with low self-confidence were more price sensitive (Barber *et al.*, 2008a).

Females seem more adventurous and are more variety-seeking than males when selecting wine (Ndanga *et al.*, 2008). Studies have found that women are able to detect more subtleties in wine and have superior senses of smell and taste (up to 20% more) to men (Atkin *et al.*, 2007; Bruwer and Li, 2007; Wenzel, 2005) and therefore generally prefer wine with less acidity and tannins (Bruwer *et al.*, 2011). Thus, generally women lean towards delicate wines such as subtle white wines whilst men lean towards full-bodied wines such as red wines (Hoffman, 2004).

2.6.2.2 Age differences

Most wine studies discriminate between the behaviour of various generational cohorts in their studies, thus comparing (in 2018): Millennials also referred to as Generation Y, aged 22 to 37 presently (born 1981-1996); Generation X, aged 38 to 53 presently (born 1965-1980); Baby Boomers, aged 54 to 72 presently (born 1946-1964) and the Greatest Generation aged 73 years and older presently (born in 1945 or earlier) (Bolton, Parasuraman, Hoefnagels, Migchels, Kabadayi, Gruber, Komarova Loureiro and Solnet, 2013; Fry, 2018; Valentine and Powers, 2013).

Reports on the influence of age on consumers' wine purchasing behaviour are conflicting (Hussain *et al.*, 2007; Lockshin and Corsi, 2012). However, wine purchase decisions seem to depend on two factors for all age and gender groups, namely the social occasion and the accompanying food (Bruwer *et al.*, 2011).

According to the most recent available research, older wine consumers (60 years and older) are less concerned about selecting the wrong wine than younger wine consumers (21-40 years old) (Barber *et al.*, 2006). Similar results were obtained by Atkin and Thach (2012)Due to their higher disposable income, older consumers, especially females, prefer to drink wine over other alcoholic beverages (Ritchie, 2011) and tend to spend more on wine than younger consumers (Millennials aged 37 years or younger presently), who are more price sensitive (Atkin and Thach, 2012; Barber *et al.*, 2009b).

Italian wine consumers of the Baby Boomers and Greatest Generation age groups are regular wine consumers; mealtimes are their favoured time to drink wine (Agnoli *et al.*, 2011).

In the USA, it was found that an individual's drinking preference is established by the age of 40 years (Murphy, 1999). Conversely, in Australia it was found that young drinkers need to be introduced and educated in wine in their late teens to mid-20's as it is in this period that consumption habits for life are established (Bruwer, 2002; Bruwer, 2004). Millennials view wine in light of a lifestyle product, describing it as "fashionable" and "sophisticated" (Euromonitor, 2007) and their main reason for consuming wine is because they like the taste (Thach and Olsen, 2006). In earlier studies, it was found that wine consumption increases with age, peaks at the midlife stage and declines from there on (Batt and Dean, 2000). It was also found that older wine

consumers consume more wine than their younger counterparts, who are occasional wine drinkers (Allen, 2002). These findings were later on confirmed by Bruwer *et al.* (2011) who found that Millennials consume significantly less and spend significantly less money on wine than the older generations. Understandably then, marketers have diverted their attention to Baby Boomers (approximately 54-72 years old presently). In recent years, marketers started to pay more attention to Millennials and GenXers (Generation X) who have increased purchase power and often a greater disposable income than their older counterparts (Resnick, 2008:62; Teagle *et al.*, 2010; Wright, 2006).

Millennials are inclined to purchase significantly more wine at on-premise locations than their older counterparts; possibly due to their higher mobility and freedom. Older consumers (older than 40 years presently), value the recommendations of waiters at restaurants more than Millennials (Bruwer *et al.*, 2011) who tend to demonstrate more variety-seeking behaviour and will choose wines that are visually appealing and that attract their attention (Heeger, 2006). Indications are that compared to men, females of the Millennial generation rely more on extrinsic cues, especially wine and food pairings on labels, and recommendations from salespersons, waiters, wine writers and their partners (Barber *et al.*, 2006; Bruwer *et al.*, 2011). Millennials with high subjective knowledge add more value to recommendations from salesperson than wine consumers from Generation X (Barber, Dodd and Ghiselli, 2008b).

Bruwer *et al.* (2011) found that 85% of Millennial females drank wine a few times a week and that frequency of wine consumption increases with age. Generally, females, especially young females, prefer sweeter wines (Lewis, 2004) whilst older females (40+ years) prefer dry wine to sweet wine (Bruwer *et al.*, 2011). In contrast, men mostly prefer dry wines at a younger age than females (Bruwer *et al.*, 2011). Studies have found that females prefer white wine to red wine (Bruwer *et al.*, 2011; Low, 2001) whilst younger, less experienced wine drinkers are also more prone to drinking white wine than red wine (Low, 2001).

In Italy, an investigation of Millennials' wine perception and beverage choice in various consumption situations, indicated that this generation select alcoholic beverages based on their different functions in various consumption situations as well as the type of company they are in. Wine is the go-to beverage in consumption situations where pleasantness and sociability are desired (Agnoli *et al.*, 2011). Millennials – particularly men – spend more time in pubs and bars compared to older generations as these have become "places of meeting and socialising" for them (Agnoli *et al.*, 2011). Generation X apparently consumes less wine than their older counterparts and it is believed that the changes brought on by the 1980's interrupted their introduction to wine: they often opt for other alcoholic beverages such as beer and non-alcoholic beverages such as soft drinks (Agnoli *et al.*, 2011). Italian wine consumers belonging to the Millennial age group, have the lowest daily wine consumption level compared to older generations due to the wider selection of alcoholic beverages available (Agnoli *et al.*, 2011; Fountain and Lamb, 2011b).

Millennials are more price sensitive when selecting wine (Fountain and Lamb, 2011b) and their friends have a greater influence on their wine selection than in the case of their older counterparts (Thomas and Pickering, 2003).

2.6.2.3 Income differences

Little research has been conducted on the influence of household income on wine consumers' wine selection and -purchasing behaviour. Previous studies mostly focussed on gender- and location differences in the amount of money wine consumers are willing to spend on a bottle of wine for personal consumption, for consumption with others, and for wine as a gift.

In line with the sampling criteria of this study, Bruwer *et al.* (2011) found that the majority of their wine consumers' sample were of the middle and upper income levels. Possible reasons include higher associated education levels and smaller household sizes (Bruwer *et al.*, 2011). In addition, in recent times, the female wine consumer visiting wineries have a higher disposable income and fall in the upper income levels (Bruwer and Johnson, 2005). Not surprisingly, consumers with higher incomes are likely to purchase more expensive wines (Cox, 2009; Thach and Olsen, 2015).

Involvement with wine as a product, has also been linked to how "well-off" a household is, i.e. the more well-off the household, the greater the involvement of the consumers (d'Hauteville, 2003) and the more sensation seeking behaviour is displayed, i.e. seeking new wine experiences and sensations (Galloway *et al.*, 2008).

Evidence of the relationship between income level, CSC and the wine selection process is sparse, emphasising the importance of this study's investigation of the relationships between income and wine knowledge and CSC.

2.6.2.4 Population group differences

There is a major gap in literature regarding the differences in wine knowledge of different South African population groups and evidence about population differences was mostly derived from studies conducted elsewhere.

Hussain *et al.* (2007) found that white consumers drink more wine than non-white consumers (African-American, Asian and Hispanic). Also, frequency of wine consumption contributes significantly to consumers' wine knowledge (Vigar-Ellis, Pitt and Caruana, 2015).

Bongela (2017) states that previously disadvantaged groups' interaction or socialisation with wine (mostly non-white consumers) was primarily by working in the vineyards, helping to produce and serve it and being

paid in the form of the so-called “dop” system (Viall, James and Gerwel, 2011:134-137). A recent South African study conducted through focus groups, concluded that black consumers had “limited exposure” to wine whilst growing up, and that for them, wine was associated with communion at church and mostly being reserved for special occasions (Weightman, 2018).

Due to Apartheid, people from black, coloured and Indian descent were disadvantaged and for the most part did not have wealth or access to the same education and job opportunities that white people had. Ndanga *et al.* (2008) state that it generally takes three to five generations for people to move out of poverty to middle-class status, but in the case of SA, it is happening more rapidly. Less than three decades have passed since the end of Apartheid and poverty has indeed decreased overall. However, in 2015, 40% of South Africans still fell under the lower bound poverty line (The World Bank, 2018). As such, several people from previously disadvantaged groups, still encounters poverty-related socio-economic challenges, such as a lack of education or schooling, captured in single parent or caregiver households; several of these individuals are unemployed and face food insecurity (SAHO, 2011; The World Bank, 2018). Therefore, market segments from previously disadvantaged groups still have to be informed, educated and socialised in wine, leaving these (emerging) market segments untapped. Marketers also need to conduct research to understand these market segments (Bruwer, 2014b; Ndanga *et al.*, 2008).

Ndanga *et al.* (2008) emphasise the importance of targeting the South African black urban market, specifically the so-called “Black Diamonds”. Their study found that this viable market segment is predominately beer drinkers and they are amateur wine drinkers. This is confirmed by Brian Anderson, CEO of Wine Solutions in an interview with Mail & Guardian who reported that wine is not a traditional drink for black South Africans and that white females and coloured individuals are the main wine consumers in SA (Bongela, 2017). Traditionally, black consumers do not relate with wine, explaining that wine makes them drunk too quickly, or that they do not like the taste, or that they have not tried it before (Ndanga *et al.*, 2008). Black consumers are also unsure which wine attributes are important when selecting a wine. They did however conclude, that black urban/ middle-class consumers’ preferences are becoming more positive towards wine (Ndanga *et al.*, 2008).

Other contributing factors influencing black consumers’ affinity for wine, are the small number of wine brands and vineyards owned by blacks in SA as less than 1% of vineyards in SA is under black ownership (SA Wine Council, 2007); the small number of black winemakers; and the lack of representation of the black culture on wine bottles/labels (Bongela, 2017). Furthermore, the vast majority of wine labels do not represent black (and for that matter coloured and Indian) cultures. Bongela (2017) noted how “surreal” it felt to recently see wines with names in isiXhosa and Sesotho, reiterating the importance of incorporating the heritage of all cultures when marketing wine in the future.

2.7 CONSUMERS' OBJECTIVE AND SUBJECTIVE WINE KNOWLEDGE

Knowledge is explained as a multidimensional construct (Alba and Hutchinson, 1987; Medeni, 2005; Nikols, 2010; Nonaka, 1994). Consumers gain knowledge through factual information/ "know about" and experience/ "know-how" (Nikols, 2010). The two types of knowledge are **explicit knowledge** (factual knowledge that can be communicated verbally) and **tacit knowledge,** demonstrated through a person's behaviour/ use/ consumption that may be difficult to communicate (Polanyi and Sen, 2009:10). In the wine context this would refer to what consumers "know about" wine, and their "know-how" to make the most suitable wine selection and use confidently. Furthermore, consumers gain knowledge through familiarity with the product, i.e. the number of product-related experiences such as information search, product usage, advertising exposure, and through expertise, thus being able to "perform product related tasks successfully" (Alba and Hutchinson, 1987). A consumer's expertise increases through exposure to various product-related experiences.

Possession of wine knowledge equips a consumer with the ability to differentiate between nuances of different wines (Taylor, Dodd and Barber, 2008), crucial in the wine selection process (Bruwer and Buller, 2012). Furthermore, adequate wine knowledge reduces confusion around wine and may also "enhance emotional attachment" (Hussain *et al.*, 2007).

Three types of *product-related knowledge* are distinguished, namely *subjective knowledge*, *objective knowledge* and *usage experience* where the latter has an influence on both subjective and objective knowledge (Brucks, 1985; Dodd *et al.*, 2005; Flynn and Goldsmith, 1999; Park, Mothersbaugh and Feick, 1994). Findings have shown that usage experience has a greater influence on a consumer's subjective knowledge than on objective knowledge (Barber *et al.*, 2008a; Dodd *et al.*, 2005; Hall, Shaw, Lascheit and Robertson, 2000; Park *et al.*, 1994; Raju, Lonial and Mangold, 1995) and that subjective wine is a main driver of consumers' wine purchase behaviour (Lockshin *et al.*, 2006; Mueller *et al.*, 2010a). Inevitably thus, experience is very important concerning wine purchases and consumption, explaining why younger consumers and black South Africans, currently, may be more hesitant and cautious when selecting and consuming wine.

2.7.1 Objective wine knowledge

Objective knowledge can be defined as the amount of factual information or knowledge that an individual has about the product and this type of knowledge can be tested or measured (Dodd *et al.*, 2005; Hall *et al.*, 2000; Park *et al.*, 1994; Thomas and Pickering, 2003).

Objective knowledge increases with age (Robson, Plangger, Campbell and Pitt, 2014; Vigar-Ellis *et al.*, 2015) and higher consumption frequency (Vigar-Ellis *et al.*, 2015). Wine consumers with higher objective knowledge also display more exploratory or variety-seeking wine purchase behaviour (Vigar-Ellis *et al.*, 2015), i.e. they are more likely to try new wines. Higher level of education are also predictors of higher objective wine knowledge (Robson *et al.*, 2014). Males have more objective wine knowledge than females (Forbes, 2012). To the contrary, Robson *et al.* (2014) found that females have higher objective knowledge.

The objective knowledge test and examples thereof from previous research are discussed in Section 4.2.2.1.

2.7.2 Subjective wine knowledge

Subjective knowledge is defined as “self-assessed”, “self-reported” or “self-perceived" knowledge or how much the individual perceives he/ she knows about a particular product (Alba and Hutchinson, 1987; Dodd *et al.*, 2005; Hall *et al.*, 2000; Mattila and Wirtz, 2001; Park *et al.*, 1994; Teagle *et al.*, 2010; Thomas and Pickering, 2003). Findings have shown that subjective knowledge influences purchasing decisions more so than objective knowledge, arguably because it is strongly linked to product involvement and it also allows researchers to better understand buyer behaviour as it is an indication of knowledge and purchasing confidence (Cox, 2009; Dodd *et al.*, 2005; Park and Lessig, 1981; Raju *et al.*, 1995).

Researchers found that consumers’ subjective wine knowledge is positively related to their wine consumption frequency (Barber, Dodd and Ghiselli, 2008b; Vigar-Ellis *et al.*, 2015) and that men possess more subjective wine knowledge than females (Forbes, 2012). Conversely, Vigar-Ellis *et al.* (2015) who investigated the effects of wine knowledge on US wine consumers’ (N=225) exploratory wine purchases could not confirm significant age, gender and level of education differences for wine consumers’ subjective knowledge. The outcome of their findings may be attributed to the small sample size used and emphasises the importance of using a sizeable sample. Some researchers found that wine consumers tend to exaggerate their subjective wine knowledge, i.e. they think they know more than they actually know (objective wine knowledge) (Veale, 2008).

The subjective knowledge questions and examples thereof from previous research are discussed in Section 4.2.2.2.

2.7.3 The relevance of usage experience

Usage experience refers to experience or knowledge obtained through involvement or observations as events occur (Barber, 2008). As expected, usage experience is related to both objective and subjective wine knowledge, but more so to the latter (Dodd *et al.*, 2005). Usage experience is prevalent in generational differences, as older consumers have more years of product exposure. For example, Barber *et al.* (2008b)

found that the subjective wine knowledge of Millennials who have on average three years of experience with wine, is lower compared to Generation X consumers who have on average 15 years of product experience. Therefore, wine experiences have a bigger influence on consumers' subjective wine knowledge than objective knowledge (Barber *et al.*, 2008b; Dodd *et al.*, 2005). Forbes *et al.* (2008) also found a link between product (wine) familiarity that is built up through purchase and consumption frequency, and objective knowledge. Thus, the more exposure to the product (wine) the greater the actual product knowledge. Barber (2009) also found that usage experience enhances consumers' objective and subjective wine knowledge. The link between usage experience and subjective wine knowledge is more prevalent in males than with females (Barber, 2009), indicating that men are inclined to think that they know more when their experiences increase, whilst females are more modest in boosting their knowledge based on experience.

2.7.4 The relationship between objective and subjective knowledge

Consumers gain knowledge through personal experience and increasing familiarity with a product, i.e. the number of product-related experiences such as information search, product usage, advertising exposure, and through increased expertise, i.e. to be able to "perform product related tasks successfully" (Alba and Hutchinson, 1987). Expertise is improved by increased exposure to various product-related experiences. Product knowledge entails various dimensions influencing the evaluation of the product and selection behaviour (Alba and Hutchinson, 1987), equipping the consumer with the ability to differentiate between nuances of different wines (Taylor *et al.*, 2008) that is crucial when selecting wine (Bruwer and Buller, 2012).

Findings have shown that usage experience (a consumer's total experiences with wine) has a greater influence on his/ her subjective knowledge than on objective knowledge (Barber *et al.*, 2008a; Dodd *et al.*, 2005; Hall *et al.*, 2000; Park *et al.*, 1994; Raju *et al.*, 1995) and subjective wine knowledge was implicated as one of the main drivers of wine purchase behaviour (Lockshin *et al.*, 2006; Mueller *et al.*, 2010a).

When consumers do not know how much they actually know about a product, it creates a gap in knowledge that can be determined by the consumer's ability to access information from memory (Barber, 2009). The relationship between subjective and objective knowledge is intricate, as consumers with little objective knowledge may perceive that they possess a high level of knowledge, which in fact refers to subjective knowledge (Barber *et al.*, 2008b; Dodd *et al.*, 2005). Consumers may even have high levels of both subjective and objective knowledge or any combination of the two (Veale, 2008): some studies found that wine consumers' objective knowledge is greater than their subjective knowledge (Barber, 2009; Barber *et al.*, 2009b), whilst other have found that wine consumers' subjective knowledge (what they think they know) is greater than their objective knowledge (Veale, 2008).

Nevertheless, both subjective and objective knowledge influence the information sources assessed by consumers and will influence the information sources used when a product is selected either for personal use or to share with others (Barber, Taylor and Strick, 2010; Dodd *et al.*, 2005).

Men with high levels of subjective wine knowledge have shown to use less personal information sources (e.g. recommendations from friends, family and salespersons) when selecting wine (Barber, 2009). Findings have also indicated that individuals who make use of subjective knowledge are less able to recall information from previous experiences, e.g. brands and product attributes and make limited use of external information sources, restricting it to current information (Mitchell and Dacin, 1996). When an individual has a high level of objective knowledge, and arguably a higher product involvement, he/ she is more likely to seek more sources of information, making use of impersonal or written information sources and depend on intrinsic cues, e.g. COO, to aid in the wine selection process (Barber, 2009; Barber *et al.*, 2010; Dodd *et al.*, 2005; Phau and Suntornnond, 2006). Having high levels of objective knowledge, allows the individual to filter and distinguish between product attributes from various information sources much easier (Brucks, 1985; Kardes, Kim and Lim, 2001; Park *et al.*, 1994; Wirtz and Mattila, 2003). Conversely, individuals with high levels of subjective knowledge, might be less able to filter information to identify the appropriate product attributes that are desired and may therefore rely more heavily on extrinsic cues such as brand or price (Cordell, 1992; Schaefer, 1997).

2.8 THE RELEVANCE OF CONSUMER SELF-CONFIDENCE

As previously discussed, wine consumers may be overwhelmed by the wine selection procedure or experience discomfort, anxiety or decision conflict when faced with numerous wine product options that differ in intrinsic and extrinsic cues. Insecurity during consumers' wine selection is linked to consumers' level of CSC and their subjective experience (Atkin and Thach, 2012; Gluckman, 1990; Olsen *et al.*, 2003). On the contrary, older studies have found that some consumers with little wine knowledge but high self-confidence are not necessarily concerned about the negative consequences accompanying a wrong wine selection and resultantly, do not experience anxiety during the wine selection and purchasing processes (Lockshin *et al.*, 1997). In a more recent study it was found that CSC when selecting and purchasing wine is a "significant factor" for both male and female consumers of all age groups (Barber *et al.*, 2006). Regardless of the varying findings, it is clear that the issue of consumers' self-confidence may be distinct from wine expertise and wine involvement in terms of wine selection and is highly relevant in the understanding of consumers' behaviour and wine consumption (Barber *et al.*, 2007b). Olsen *et al.* (2003) proposed that by increasing CSC, one will not only ease the anxiety associated with wine selection and enhance the acceptance of wines but also inspire consumers to try out new and different wines.

2.8.1 Consumer self-confidence research and conceptualisations

CSC refers to the consumer's subjective evaluation of their ability (Adelmann, 1987; Blascovich and Tomaka, 1991; Clark *et al.*, 2008) to act with authority in the market place and to ensure positive marketplace experiences (Bearden *et al.*, 2001). Despite extensive research on consumers' self-confidence and self-esteem in the past (Adelmann, 1987; Coopersmith, 1967; Darden and Ashton, 1974; Locander and Hermann, 1979; Park *et al.*, 1994; Rosenberg, 1965; Wells and Prensky, 1996), the relationship between self-esteem and CSC is not yet certain (Bearden *et al.*, 2001). Bearden *et al.* (2001) hence attempted to bridge this gap by providing a definition of CSC and validating scales to measure the construct. They developed and validated a model, investigating CSC as a multidimensional construct, using a seven-study process to assess and validate the scale items. This resulted in a six-dimensional CSC measurement scale with 31 descriptors/ scale items.

Loibl, Cho, Diekmann and Batte (2009) continued with a modified version of the CSC scale of Bearden *et al.* (2001) to determine the relationship between CSC and consumers' information search thus omitting the purchasing aspect of the scale and the *Marketplace Interfaces* dimension to solely focus on information search itself.

The validated scale of Bearden *et al.* (2001) was adapted to explore and describe the CSC of consumers when purchasing wine (Olsen *et al.*, 2003). They adapted the wording of the original scale to fit the wine context but were unable to change three scale items that were consequently omitted ("My neighbours admire my decorating ability"; "I can tell when an offer has strings attached"; and "I have no trouble understanding the bargaining tactics used by salespeople"). Therefore, 28 scale items adapted to the wine context were assessed. One scale item ("I know when a wine for sell is too good to be true") had a very low factor loading and the researchers suggested that this scale item also be omitted, resulting in a 27-item scale.

McClung *et al.* (2015) used the scale adapted by Olsen *et al.* (2003) that was designed to determine CSC within the wine purchasing context, to determine if wine consumer self-confidence (WCSC) influences consumers' purchase strategies as defined by Spawton (1991). Through factor analysis, the dimension *Consideration set formation* dispersed amongst the other dimensions to retain only five dimensions/ factors. One scale item ("I never seem to buy the right wine for me") from the *Personal Outcomes* dimensions was eliminated during the process. The resulting WSCS has not been used in another study since, although the CSC scale of Loibl *et al.* (2009) was adapted and used fairly recently in the South African context by Erasmus *et al.* (2015), for products in general.

2.8.2 Consumer self-confidence explicated

CSC is a multidimensional concept (Bearden *et al.*, 2001) with two underlying higher-order dimensions, namely Decision Making (DM) and Protection (PROT) that are further defined in terms of sub dimensions.

2.8.2.1 Decision-making (DM)

The DM dimension comprises a consumer's perceived ability to make consumer decisions and to collect and utilise information and is further defined in terms of five underlying dimensions called Information acquisition (IA), Information processing (IP), Consideration set formation (CSF), Personal outcomes (PO) and Social outcomes (SO) (Bearden *et al.*, 2001). One of the five underlying dimensions, namely Information processing (IP), involves the ability of a consumer to use the information obtained from information sources to simplify the purchase decision. The IP dimension of the original CSC scale was rejected as the items cross-loaded with the items of IA and CSF (Bearden *et al.*, 2001). Subsequent uses and modifications to the scale omitted IP as a dimension and DM and retained only four validated dimensions (IA, CSF, PO and SO) (Loibl *et al.*, 2009; McClung *et al.*, 2015; Olsen *et al.*, 2003).

Information acquisition (IA)

Access and proper application of information is imperative to the wine selection and purchase decision process and can reduce consumers' perceived risk (Barber *et al.*, 2007b). Research has shown that the more information and knowledge consumers collect and have, the more confident they feel when making the wine selection and purchasing decision (Bearden *et al.*, 2001; Loibl *et al.*, 2009). Most consumers therefore resort to information acquisition by assessing various information sources to aid in making the complex decision and reducing decision conflict (Barber *et al.*, 2007b; Lockshin and Hall, 2003). Consumers use information to increase their knowledge about the options available and to reduce uncertainty about the purchase decision (Chaney, 2000; Thomas and Pickering, 2003). However, the volume of information on wine can be intimidating and consequently consumers may reduce the number of information sources used to simplify the decision-making process and reduce decision conflict. Consumers therefore use a small portion of the information available to make the selection decision (Chaney, 2000). Often, consumers select "safe brands" such as well-known brands or make selections based upon recommendations from friends, families and sales personnel to overcome uncertainty (Resnick, 2008:63,136; Spawton, 1991). Consumers may also revert back to previous knowledge and experiences to make the best selection (Lockshin and Hall, 2003). The more self-confident the consumer is, the more he/ she will rely on previous experiences and knowledge to make the purchase decision (Bearden *et al.*, 2001). Wine consumers with more subjective knowledge tend to make use of published materials (impersonal information sources) when selecting a wine (Barber, 2009). Wine

consumers with more objective knowledge make more use of impersonal sources and their own experience-based knowledge when selecting a wine (Dodd *et al.*, 2005).

Some of the **information sources** consumers may consult before and during the wine selection process include the front label and back label on the bottle, information on shelves, marketing and promotional media, shelf-talkers, shop assistants, friends, family, journalists, wine writers, magazine articles, wine guides, own preferences and personal values (for example purchasing a locally produced wine) (Barber *et al.*, 2007b; Chaney, 2000; Dodd *et al.*, 2005; Hall *et al.*, 2000; Mueller *et al.*, 2010a; Unwin, 1999). The information consumers use, is categorised as primary product attributes such as origin, price, quality, region, taste, vintage brand name and grape variety (Barber *et al.*, 2006; Sánchez and Gil, 1998; Shaw, Keeghan and Hall, 1999) and end use, end user, endorsements, parentage and production (Shaw *et al.*, 1999).

Much research was conducted on the information provided by wine bottle labels (Barber *et al.*, 2007b; Charters, Lockshin and Unwin, 1999; Lunardo and Guerinet, 2007; Mueller *et al.*, 2010a; Reidick, 2003; Shaw *et al.*, 1999; Tang, Tchetchik and Cohen, 2015; Thomas and Pickering, 2003). Label information gives the consumer the first impression of the wine and discloses certain benefits of a wine, for example COO, style, alcohol content and geographic origin. Wine consumers use label information as part of risk reducing strategies (Atkin and Johnson, 2010; Thomas and Pickering, 2003).

Important label cues on wine include ROO, COO, alcohol content, grape variety, wine style, vintage and brand name (Barber *et al.*, 2007b). Other label cues include company name, history of the wine maker, wine making process, image or picture or logo, expert opinion and awards or medals (Thomas and Pickering, 2003). Label cues are important to consumers who have not consulted other forms of wine information such as sales personnel in the store, and who form their opinion based on the information provided by the label (Reidick, 2003). Some consumers select wine primarily on the basis of its “aesthetic value and distinctiveness of the label design” (Reidick, 2003). Atkin and Johnson (2010) found that the brand and place-of-origin (region, country and state) were the most influential wine attributes when it came to wine selection by more knowledgeable wine consumers and more frequent wine consumers. Noteworthy, is that available information is only valuable when it is presented in a way that permits effective evaluation. The numerous wine products on shelves that differ in terms of label design and label information may impair effective evaluation or processing of the information. Therefore, a consumer might be more inclined to evaluate a product (e.g. wine) positively if it is easier to do so (Barber *et al.*, 2007a). Evidently, the information sources used are also dependent on the consumption situation (Barber *et al.*, 2008b). Label cues such as a colour, previous experience with a certain label, familiar front label image, type face or number of facings can aid in processing information and evaluating alternatives more effectively (Barber *et al.*, 2007a; Robinson, 2016).

Therefore, wine labels are important to wine consumers. As a result, wine labels need to be aesthetically appealing and label cues must be easy to read and clearly visible (Barber *et al.*, 2007b).

Some wine consumers only use a small portion of available information to reduce their options and decision conflict, by for example only focussing on a few product attributes such as price or COO (Chaney, 2000). Information sources seem to depend on the consumer's level of involvement with the product (Dodd, 1998). However, the way that information is presented to consumers during the purchasing and selection process has also been shown to significantly impact CSC (Barber *et al.*, 2007b). Whilst some wine consumers only use a small portion of the available information, it was found that product knowledge and product involvement reduce the discomfort associated with the purchase decision (Engel, Blackwell and Miniard, 2000; Wells and Prensky, 1996).

A US study has shown that two informational label cues are most important to American wine consumers, namely the vintage and brand name, whilst grape variety, ROO, colour and shape of the bottle, bottle closure type and cellar information were also found to be important (Barber et al., 2006). In a South African study conducted by Engelbrecht, Herbst and Bruwer (2014) who investigated the importance of the presence of geographical information on wine labels – specifically the importance of ROO – the grape variety of the wine had the greatest influence with ROO being the second largest influence on consumers when selecting a wine. In addition, a "composite regional variable" including the grape variety, ROO and wine style was found to have a considerable influence on wine consumers when purchasing wine.

Wine consumers who are moderately or highly involved with wine are inclined to use specific information sources, firstly preferring to discuss wine with their peers, using information on the label and then also using recommendations of store personnel. They also made use of shelf information, newspapers, magazines and to a lesser extent, books (Atkin *et al.*, 2005a).

Previous experience builds a consumer's wine knowledge and their CSC (Dodd *et al.*, 2005; Hall *et al.*, 2000; Unwin, 1999). As previously discussed, consumers would rather select a wine that he or she has previously experience with, i.e. has tasted before. This is specifically true for younger consumers, who would do so rather than selecting a wine based on a recommendation from a peer or selecting a "prestigious" wine (Johnson and Bruwer, 2004; Kallas *et al.*, 2013; Lockshin and Hall, 2003). Younger, insecure consumers also tend to rely more on their own, previous experience with wine during wine selection (Kallas *et al.*, 2013).

The recommendations of friends, families or colleagues is another method of IA and a way to reduce perceived risk of selecting the wrong wine (Dodd *et al.*, 2005; Hall *et al.*, 2000; Johnson and Bruwer, 2004; Lockshin and Hall, 2003; Unwin, 1999). Kallas *et al.* (2013) found that a recommended wine is more significant than selecting a prestigious wine. Although previous product experience is more important for lower-

involved wine consumers and those who purchase wine less often, they are more willing to pay for a wine recommended by friends or peers to reduce the risk of selecting the wrong wine (Kallas *et al.*, 2013).

Information processing (IP)

IP involves the ability of a consumer to use the information that is obtained from information sources to simplify the purchase decision. The IP dimension of the original CSC scale was omitted as the items cross-loaded with the items of IA and CSF (Bearden *et al.*, 2001). Subsequent uses and modifications to the scale omitted IP as a separate dimension and DM therefore comprises four validated dimensions (IA, CSF, PO and SO) (Loibl *et al.*, 2009; McClung *et al.*, 2015; Olsen *et al.*, 2003).

Consideration set formation (CSF)

CSF constitutes the ability of consumers to make an evoked set of the available product options. The evoked set includes differentiating between choice alternatives and knowing where to shop for wines (Bearden *et al.*, 2001). The size of the consumer's evoked set depends on the a consumer's need and the variety of products that could satisfy it (Alba and Hutchinson, 1987). When consumers have to choose between the attributes of various wines, the difficult process to make trade-offs between the attributes of the diverse wines commences. This may even lead to purchase delay (Novemsky *et al.*, 2007). In the case of preference uncertainty, consumers tend to revert to previous knowledge and experience to make the purchase decision. Often, consumers do not have definite preferences and therefore endeavours to generate preferences to make subsequent decisions easier (Novemsky *et al.*, 2007). Consumers with more knowledge and/ or expertise will be able to create larger, more heterogenous evoked sets in situations with diverse possible solutions and smaller, more homogenous evoked sets in case of situations with specific solutions (Alba and Hutchinson, 1987). Consumers' confidence levels may also influence their ability to make evoked sets (Bearden *et al.*, 2001).

The use and validity of the WSCS was revisited in 2015 for the first time since its design in 2003 (McClung *et al.*, 2015) concluding that CSF was an insignificant determinant of CSC. The quantity of brands and labels that increased from in 2003 until 2015 and confusion under consumers concerning what is meant with "brands of wine" were proposed as possible explanations (McClung *et al.*, 2015).

Personal outcomes (PO)

PO encompasses the influence of purchase decisions on the outcomes experienced by an individual, e.g. personal satisfaction or regret (Bearden *et al.*, 2001; Erasmus *et al.*, 2015). In the case of wine selection, PO can be seen as the satisfaction or dissatisfaction or regret that the consumer experiences from the wine. However, it can also be linked to the risks perceived as part of the purchase decision and how these risks are

resolved. The scale items of the PO dimension measure the consumer's confidence in his/her ability to make the correct purchase decision to reach personal objectives and satisfaction. To make correct decisions, consumers have to retrieve information from their previous experiences and knowledge about the product (Bearden *et al.*, 2001).

Social outcomes (SO)

The SO dimension encompasses the self-belief a consumer has that his/ her product choice, will elicit positive outcomes or reactions such as admiration from friends, family and/or colleagues (Bearden *et al.*, 2001; Erasmus *et al.*, 2015). The decision includes making use of experience gained through product exposure and usage experience. Should a consumer choose the wrong wine, he/ she might lose admiration from his/ her peers whilst choosing the correct wine can lead to admiration from peers.

2.8.2.2 Protection (PROT)

PROT encompasses how confidently consumers can protect themselves from unfair treatment in the purchase situation or POS. PROT includes two underlying dimensions namely Persuasion knowledge (PK) and Marketplace interfaces (MI) (Bearden *et al.*, 2001; Olsen *et al.*, 2003).

Persuasion knowledge (PK)

PK entails the "perceived capabilities" of the consumer to identify and cope with marketing/ promotional tactics and to use it to one's advantage (Bearden *et al.*, 2001; Erasmus *et al.*, 2015). Part of identifying marketing tactics is to identify marketers' behaviour in terms of cause-and-effect relationships (Bearden *et al.*, 2001) and identifying an offer that is not legitimate (Olsen *et al.*, 2003). PK focusses on the ability of the consumer to identify marketing gimmicks and tactics that may be used to persuade consumers to choose offers that are unrealistic and with some form of obligation attached to it, and the ability to be influenced or even manipulated into choosing a product by salespersons or marketers (Bearden *et al.*, 2001).

Marketplace interfaces (MI)

MI encompasses the perceived ability of a consumer to stand up for himself/ herself, voice concerns and take corrective action when their consumer rights have been impeded (Bearden *et al.*, 2001; Erasmus *et al.*, 2015). Consumers with high CSC will have the ability to better assert themselves in the market place, voice their concerns and take corrective actions than consumers with low CSC. This for example includes insisting on product tastings, refusing to purchase a product that does not conform to the consumer's expectations and insisting on replacement or repair of products that are unsatisfactory (Bearden *et al.*, 2001).

2.9 SUMMARY

Wine consumers are presented with an overwhelming variety of wines to choose from and consequently some consumers may feel intimidated, uncomfortable and even anxious when having to select a wine. As the wine can only be assessed once the bottle is opened and when the wine is consumed, wine consumers must determine the quality and to what level it will satisfy their needs or expectations by assessing the extrinsic cues such as ROO, vintage and cultivar. Certain indicators or cues seem more important than other and mostly, these are displayed on the labels of wine bottles. Consumers' objective and subjective knowledge is positively linked: some studies have found that higher consumption frequency and higher involvement are positively correlated with wine knowledge. Generally, wine purchases occur at two different sales contexts, namely off-premise and on-premise locations. More sales occur at off-premise locations than at on-premise locations. For both sales contexts, factors such as the company in which the wine is selected (alone or in the presence of peers), the occasion for which the wine is selected (personal or social consumption), availability of information sources and the existence of previous product experiences ultimately influence how confidently the purchase decision is made. Moreover, little research regarding wine consumers' self-confidence when selecting wine at an on-premise location, is available. A positive link between self-confidence and subjective knowledge was also recognised based on previous research. Multiple studies have also found that demographic characteristics such as gender, age, income, level of education and population group/ ethnicity influence consumers' consumption and purchasing frequencies, product involvement, wine knowledge and CSC/ purchase confidence.

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CHAPTER 3

Theoretical Perspective, Conceptual Framework and Research Objectives

This chapter presents the theoretical perspective that was used to structure the research as well as the conceptual framework, indicating the relationship between the constructs that are relevant to this investigation.

3.1 INTRODUCTION AND JUSTIFICATION OF THE THEORETICAL PERSPECTIVE

3.1.1 Introduction

The rational choice theory (RCT) (also called rational decision-making preference, perspective or approach, or rational action theory) was initially primarily used in the field of Economics (also referred to as neoclassical paradigm in this context) to explain financial decision-making but has since been used successfully in other fields such as Sociology, Political Sciences, Law, Anthropology and Criminology (Green, 2002; Hechter and Kanazawa, 1997). The RCT was applied in a wide variety of research situations including development of languages; analyses of war outcomes, criminal behaviour and inflation-related consumer behaviour; and religious behaviour such as church attendance based on its ability to provide useful insights into human behaviour (Green, 2002).

At its core, the RCT assumes that humans are rational beings who make considered, calculative and informed decisions and that they understand the value of these decisions (Babin and Harris, 2013:250; Solomon, 2007:306). Consumers will make utility maximising (or disutility minimising) decisions, i.e. coherent choices or decisions that will ultimately provide them with the most benefits (or least pain) compared to the cost of making the decision. The benefit or utility gained can be described as the satisfaction that an individual gain from the decision (Elster, 2001; Gilboa, 2010:23; Green, 2002).

3.1.2 Basic principles of RCT

To be rational does not necessarily entail to be sensible, thoughtful or clear-headed but rather to be goal-oriented, reflective and to make decisions in a consistent and coherent manner. Non-rational or irrational decisions refer to random and impulsive decisions and even conditioned decisions, in the sense that they are not calculated and well deliberated. Furthermore, an irrational decision can be seen as a decision that does

not maximise utility or that is grounded on an irrational preference (Green, 2002; Hechter and Kanazawa, 1997).

Some of the basic principles of RCT include that rational individuals have interests or preferences that differ from those around them. These interests define associated utilities when considering products, which in turn determine the rational choices that would increase these utilities. The results of the choices that are made by an individual is however not in their control (Anand, Pattanaik and Puppe, 2009).

The theory comprises two distinct components, i.e. consumers calmly and meticulously gather and integrate all information including previous knowledge and experiences, of a product and the possible outcomes. The second component involves evaluating the possible outcomes (Jackson, 2005). During evaluation of the possible courses of action and corresponding outcomes, the pros and cons of each outcome is carefully considered (Solomon, 2007:306; Van Hamersveld and De Bont, 2007:25). RCT states that a rational individual will choose the possible outcome/ alternative which is expected to lead to the greatest satisfaction or reward, where social approval is seen as the fundamental reward (Scott, 2000:128) as the RCT focusses more on social outcomes than personal outcomes (Hechter and Kanazawa, 1997). Conversely, individuals would refrain from choosing outcomes that may lead to social punishment or disapproval of others that are important to them (Jackson, 2005). In the case of wine selection, negative outcomes or perceived risks include choosing a wine with an undesirable taste or that does not pair well with the food it is served and choosing a wine that is disapproved by friends, family and/ or colleagues (Mitchell and Greatorex, 1988). Some studies have found that wine is perceived as a feminine product (Mitchell and Greatorex, 1988; Mitchell and Greatorex, 1989) and this can inhibit men, who have a greater desire to impress others (Barber *et al.*, 2009a), to drink and purchase wine for fear of creating a "negative" image.

3.1.3 Assumptions of RCT

The RCT is built on certain assumptions specifying how a decision should be made (Bazerman and Moore, 2013:5), namely:

- *An individual is consciously trying to solve a decision problem (Hoque, 2006:8) as constraints necessitate choice (Green, 2002).*

  When purchasing or selecting a wine, the constraints that the consumer may face, include being overwhelmed by the number and diversity of wine choices that are available in the market, knowing that several of the wine characteristics can only be assessed once the bottle was opened and the wine consumed (Atkin and Johnson, 2010; Atkin and Thach, 2012; Barber and Almanza, 2007; Barber *et al.*, 2006; Barber *et al.*, 2008b; Chaney, 2000; Jaeger *et al.*, 2009; Lockshin and Hall, 2003; Lockshin *et al.*, 2006). As a result, the consumer is required to make "trade-offs" between the desirable

attributes of the wines that are available (Novemsky *et al.*, 2007) to make the decision that culminated as a complex consumer decision.

- *All the possible choice alternatives and outcomes are known (Green, 2002).*

  In the case of wine, all the choice alternatives are not necessarily known to the consumer due to wide array of wine available in the market today (Robinson, 2016; Wine Institute, 2004). The implication for the consumer, is that one has to sift through a large amount of wine cues such as brand name, origin of the wine, type of wine, and price (Kallas *et al.*, 2013; Lacey *et al.*, 2009) enabling clearer possible outcomes of those selected. Furthermore, the wine assortment offered at different sales locations can differ, i.e. between stores of the same franchise and between restaurants. The assumption that all outcomes are known, as is proposed in RCT, is debatable. The main outcomes associated with a wine purchase decision are social and personal outcomes (according to the CSC scale). Possible social outcomes include acceptance and even admiration, rejection or indifference of the wine selected by the consumer by his/her peers. Personal outcomes relate to the satisfactory accomplishment of the wine consumer's expectations, be it price, quality, taste or brand. The personal and social outcomes are subjective and may be influenced by a wine consumer's level of self-confidence, accentuating the importance of understanding consumers' self-confidence when choosing wine.

- *The assumption of **completeness** assumes that the individual has all the information ("perfect market information") necessary to make a rational choice (Hoque, 2006:8; Jackson, 2005) and that for any pair of choice alternatives, the individual will have clear preferences between the two or be completely indifferent about the two alternatives (Green, 2002).*

  "All the information" requires an extensive and time-consuming information search before making a decision. Bazerman and Moore (2013:3) warns against spending too much time on distinguishing choice alternatives: "An optimal search continues only until the cost of the search outweighs the value of the added information" – emphasising that time and financial constraints limit a consumer's ability to obtain complete information (Bazerman and Moore, 2013:5). Complete information needed by an individual to make a rational wine choice may differ from one individual to the next as their preferences and existing knowledge and experience differ. For example, if a wine consumer is looking for the best Sauvignon Blanc and perceives the best Sauvignon Blanc to have been produced in 2013 in Western Australia, these facts represent all the information needed the individual to make a rational choice. These indicators will however differ amongst consumers due to their respective preferences and of course, in accordance with the wine choice alternatives that are available at that

specific time. Secondly, consumers do not always have clearly defined preferences but may construct preferences in the choice situation, often due to decision conflict (Novemsky *et al.*, 2007), which can be expected in the case of a complex consumer decision such as selecting wine. Lastly, consumers do not always use all the information sources at their disposal; it is perceived to increase the difficulty of the purchase decision (Chaney, 2000).

- *The possible choice outcomes can be ranked, thus no course of action is equal to another (Hechter and Kanazawa, 1997; Moll and Hoque, 2006).*

  Eventually, based on the criteria used, a consumer will be able to identify the most preferred wine, the second best and so on.

- *The assumption of **transitivity** assumes that an individual has different preferences for the possible choice alternatives due to the potential rewards or negative consequences that they entail (Hechter and Kanazawa, 1997; Moll and Hoque, 2006). These preferences do not change, even if another relevant alternative becomes available.*

  The possible social and personal outcomes when choosing wine will depend on the ultimate consumption situation and is again subjective to each individual and the person's prior experience or the perceived importance of the various outcomes. For example, if the individual prefers wine A to wine B and wine B to wine C the individual will prefer wine A to wine C, based on transitivity.

These assumptions were used to interpret the results in Chapters 5 and 6.

3.1.4 How does the RCT work?

Bazerman and Moore (2013:2) identify six steps in the rational decision-making process, namely 1) defining the problem; 2) identifying all relevant criteria to accomplish the outcome; 3) weighing the criteria by adding values to each criterion; 4) constructing choice alternatives or various courses of actions; 5) assessing each choice alternative in accordance with the criteria; and 6) calculating the ideal decision that would maximise the utility.

Not all decisions made by consumers are necessarily rational in nature. Furthermore, the perception of rationality also differs amongst individuals (Babin and Harris, 2013:251).

Researchers have distinguished several two-system theories to explain the types of decisions made by individuals. System 1 thinking relates to decisions that are made quickly, frequently, routinely, automatically, emotionally and unconsciously. System 2 thinking refers to conscious, explicit, calculated and deliberate

decisions that may take longer to conclude (Bazerman and Moore, 2013:3; Evans, 2008; Stanovich and West, 2000). Although some decisions require the individual to go through an intricate process to reach a final decision (System 2 thinking), several decisions are made impulsively and are made without prior planning or a deliberated decision-making process (System 1 thinking). A complex purchase decision could be quite extensive and demanding, and is not sensible for all purchase decisions for example decisions that are taken frequently, and as such, consumers may use shortcuts to speed up, reduce effort and even automate the decision-making process (Babin and Harris, 2013:250-251; Bazerman and Moore, 2013:3; Solomon, 2007:306; Van Hamersveld and De Bont, 2007:485). When faced with multiple choice alternatives, consumers unconsciously revert to emotions, heuristics or coping mechanisms (risk reducing strategies) to make appropriate decisions (Bazerman and Moore, 2013:6; Mitchell and Greatorex, 1989), for example following advice from friends, family or salespersons; reverting to reputable brands; and establishing quality based on price or packaging (such as the label) (Spawton, 1990). As an individual is exposed to the same or a similar decision, he or she builds memories based on factual and emotional experiences and therefore becomes more experienced. This makes consumer decisions easier as a consumer then possesses a frame of reference that can guide future decisions (usage experience in the wine context).

However, only a fraction of information is stored in an individual's usable memory (Bazerman and Moore, 2013:5) and individuals may employ various heuristics when faced with a complex decision (Gigerenzer and Gaissmaier, 2011) reverting to the *availability heuristic* or emotional associations (Bazerman and Moore, 2013:7-8) they have had with a wine product. This may occur when faced with numerous choice alternatives that are often overwhelming (Van Hamersveld and De Bont, 2007:485). For example, when one associates a specific wine with a particular occasion, it might jeopardise one's objectivity towards that wine and others on the shelf. The *representativeness heuristic* is another heuristic that may be used by individuals whereby they make a decision (sometimes unconsciously) based on traits that correspond with preconceived stereotypes or notions (Bazerman and Moore, 2013:8-9), for example, reasoning that certain wines are superior to others. Individuals also make decisions based on confirmatory information and often fail to assess all possible causes or associations during the information search. As a result, they may make a decision based on preconceived ideas, referred to as the *confirmation heuristic* (Bazerman and Moore, 2013:9). For example, some individuals may associate cork wine closures with expensive and/ or good quality wines not considering the that screw caps may also be used for good quality wines.

It is important to note that heuristics can be employed in both System 1 and System 2 thinking to simplify the purchase decision (Bazerman and Moore, 2013:6). However, heuristics are often employed unconsciously by the decision maker in System 2 thinking, deterring rational decision-making.

3.1.5 Criticism and virtues of RCT

Major critiques against RCT include: Assuming that humans are always rational; that they always make weighed, calculated decisions optimally; that they have complete information about the choice alternatives at hand, or access to it; that consumers do extensive calculation before making their decisions; assuming that these decisions occur in "perfectly competitive markets"; and assuming that preferences are clear and uncontested (Bazerman and Moore, 2013:3; Green, 2002; Hechter and Kanazawa, 1997). Therefore, several alterations, revisions and additions were made to the original version of the RCT over time to compensate for scholars' critique of the theory. Even though the RCT still has notable limitations, it is nevertheless still used today for amongst other things, its simplicity (Elster, 2001).

The RCT produces many testable, observable and/ or novel predictions of human and consumer behaviour, arguably more so than other methodologies/ theories. In addition, the trade-offs made by the individual between choice alternatives are clear (Green, 2002). Compared to other theoretical frameworks, RCT is relatively easy to use and interpret.

3.1.6 RCT, wine knowledge and CSC

For the purpose of this study, wine consumers' behaviour is conveyed in the normal/ traditional RCT framework. The RCT can be applied to wine consumers' wine knowledge and CSC as the theory assumes that humans are rational beings that make rational decisions. Thus, consumers' decisions, be it rational or irrational/ emotional when faced with a multiplicity of wine options at some point in time, will inter alia depend on their level of CSC and their wine knowledge. It was assumed in this study, that wine consumers with high CSC will make rational decisions; conversely, that wine consumers with low CSC will resort to heuristic approaches to choose the most suitable wine.

3.2 CONCEPTUAL FRAMEWORK

The conceptual framework was designed based on previous studies and findings in literature and through integration of constructs that are relevant in this study. The constructs and their relation to one another are depicted in Figure 3.1, also depicting the research objectives and sub-objectives.

Consumers' **wine knowledge** (Objective 1) is comprised of **subjective knowledge** (what consumers think they know) and **objective knowledge** (what they really know). Based on extant literature, it is proposed that relationships exist between wine consumers' wine knowledge and their **demographic characteristics,** namely gender; age; monthly household income; and population group based on evidence of increased experience and lifestyle practices as explained in Chapter 2.

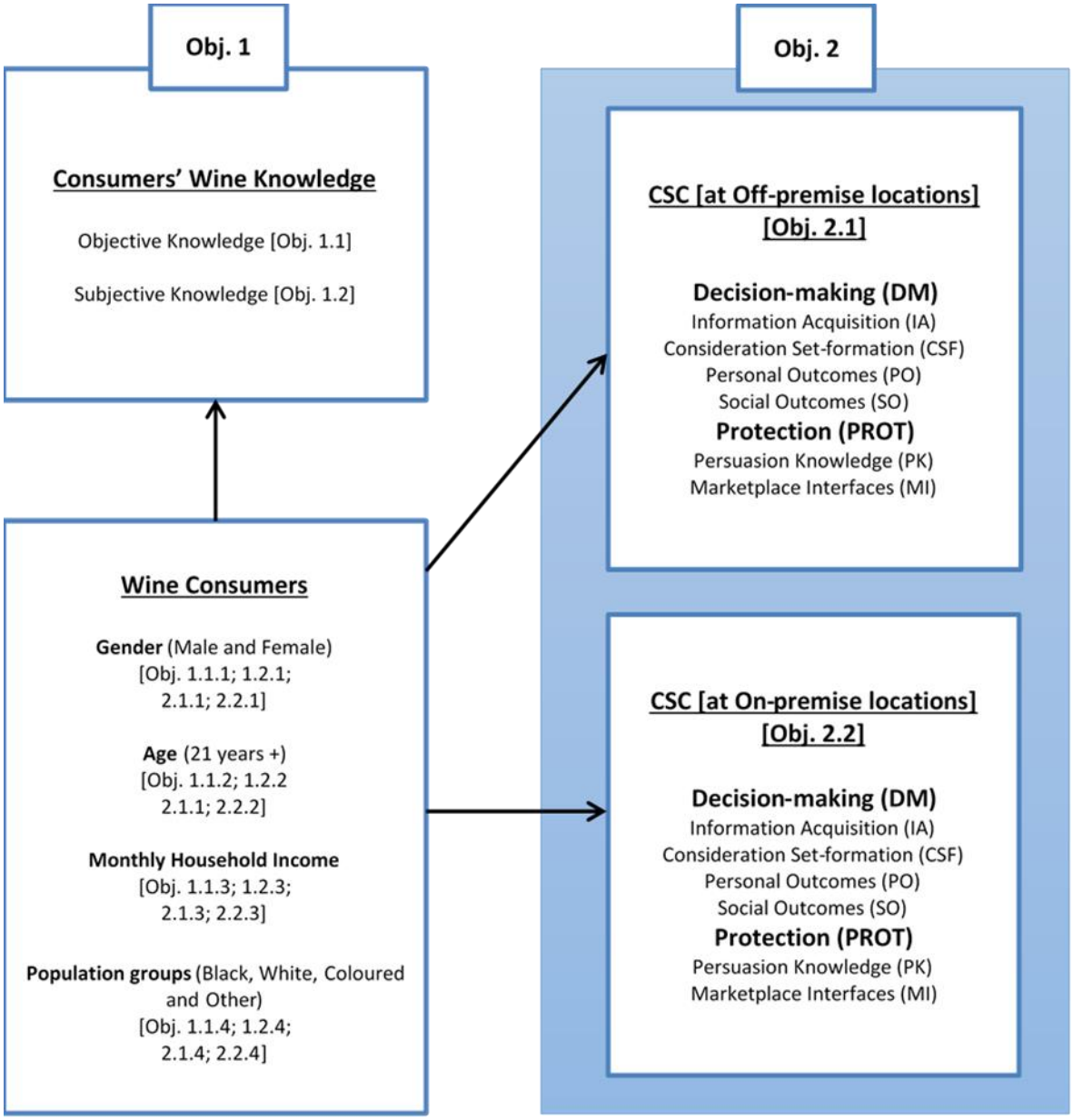

FIGURE 3.1: CONCEPTUAL FRAMEWORK*

[*In this study, CSC (consumer self-confidence) refers to WCSC (wine consumers' self-confidence)]

Consumer's self-confidence (Objective 2) comprises two higher order dimensions, namely **Decision-Making** and **Consumer Protection**, with a total of six underlying dimensions. Two prepositions were made, i.e. that CSC differs at different sales contexts (**on-premise** and **off-premise locations**). Secondly, it was also proposed that relationships exist between CSC at different sales contexts and consumers' **demographic characteristics,** as specified for Objective 1. Previous studies have found differences in wine consumption and purchasing behaviour of **males** and **females** (Bruwer and Johnson, 2005; Bruwer and Li, 2007; Bruwer *et al.*, 2011; Low, 2001; Ritchie, 2007; Sbrocco, 2003), and consumers from various **age groups** (Allen, 2002; Batt and Dean, 2000; Bruwer, 2002; Bruwer, 2004; Bruwer *et al.*, 2011; Euromonitor, 2007; Murphy, 1999; Teagle *et al.*,

2010; Thach and Olsen, 2006; Wright, 2006). Therefore, it is imperative that these two demographic characteristics are included in the objectives of the study. On the contrary, little research has been done on the differences in wine consumption and purchasing behaviour of consumers from various **income-** and **population groups**. Therefore, the influences that these two demographic characteristics can implore on the wine selection decision were of particular interest to expand theory.

3.3 RESEARCH AIMS AND OBJECTIVES

3.3.1 Aim of the study

The principle aim of this study was to investigate and describe South African wine consumers' knowledge of wine, and to distinguish between their objective- and subjective knowledge of wine. The secondary aim of this study was to investigate and describe SA wine consumers' self-confidence (WCSC) concerning selecting wine in different sales contexts, distinguishing on-premise and off-premise locations. The relationship between the CSC of wine consumers and their demographic characteristics, namely gender, age, income and population groups, was also investigated.

3.3.2 Research objectives

The following objectives were derived from the overall aim of the study. The sub-objectives are indicated in the brackets (also refer to Figure 3.1 for visual representation of the study's objectives).

Objective 1: **To investigate and describe wine consumers' knowledge of wine and to distinguish significant differences within *four demographic characteristics*.**

Sub-objective 1.1: To investigate and describe wine consumers' **objective knowledge** of wine and to distinguish significant differences within *gender* (1.1.1), *age* (1.1.2), *income* (1.1.3) and *population group* (1.1.4) categories.

Sub-objective 1.2: To investigate and describe wine consumers' **subjective knowledge** of wine and to distinguish significant differences within *gender* (1.2.1), *age* (1.2.2), *income* (1.2.3) and *population group* (1.2.4) categories.

Objective 2: **To investigate and describe wine consumers' CSC when selecting wine in different sales contexts and to distinguish significant differences *within four demographic characteristics*.**

Sub-objective 2.1: To investigate and describe wine consumers' CSC when selecting wine at **off-premise locations** and to distinguish significant differences within *gender* (2.1.1), *age* (2.1.2), *income* (2.1.3) and *population group* (2.1.4) categories.

Sub-objective 2.2: To investigate and describe wine consumers' CSC when selecting wine at and **on-premise locations** to distinguish significant differences within *gender* (2.2.1), *age* (2.2.2), *income* (2.2.3) and *population group* (2.2.4) categories.

3.4 SUMMARY

RCT was selected as this study's theoretical perspective as it was used successfully in multiple studies in the fields of Economics (especially Behavioural Economics), Sociology, Criminology and Anthropology before. Because wine is considered a fairly complex purchase decision that involves multiple facts and where consumers may experience confusion due to the immense array of products on the market, the RCT seemed to provide a relevant and appropriate perspective to work from. This chapter presented the basic assumptions of RCT and indicated how it applies to this study. The conceptual framework that was based on extant literature was presented, indicating the research objectives for the study that directed the research design and methodology that are presented in Chapter 4.

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CHAPTER 4

Research Design and Methodology

This chapter introduces the research design and methodology chosen for this investigation; the operationalisation of the relevant constructs; measures taken to ensure the quality of the research, along with considerations to ensure ethically sound practice.

4.1 RESEARCH DESIGN

A research design represents the "type of inquiry" that establishes the path for procedures, relevant within a particular quantitative, qualitative or mixed-method research approach (Creswell, 2014:12). This study was non-experimental, survey-based (using a structured, electronic questionnaire), with the aim to collect quantitative, numeric data (Creswell, 2014:13), thus an empirical, quantitative research approach (Kumar, 2014:180).

The study was cross-sectional, meaning that the researcher had only a single opportunity with the study population at a specific point in time. The study was conducted in a single phase by taking a cross-section of the study population to gain insight into the current situation (Kumar, 2014:134) being South African wine consumers' wine knowledge and their consumer (wine) self-confidence (CSC/ WCSC). An analytical approach was used, i.e. a structured and rigid set of procedures were followed.

The questionnaire was distributed electronically via non-random, convenience sampling (Creswell, 2014:12-13). A questionnaire was chosen as it is less time consuming, easier to code, cheaper and guarantees greater anonymity for the respondents (Kumar, 2014:181). Convenience sampling, a non-probability sampling method, was selected to reach potential participants in a practical, cost-effective, time efficient way, allowing relatively easy access to potential participants (Bryman and Bell, 2011:105; Kumar, 2014:242-245). Two forms of convenience sampling (quota sampling and snowball sampling) were used: Consulta Research (Pty) Limited was contracted to do the data collection electronically, inviting suitable respondents on their existing database. In addition, the respondents were provided the opportunity to invite friends, family or acquaintances that met the criteria for participation, to complete the questionnaire by sharing the questionnaire link to their email addresses (i.e. snowball sampling) (Babbie, 2016:188; Kumar, 2014:242-245).

The sample comprised wine consumers across SA, aged 21 years and older, with no restrictions concerning gender, population group, income- and education level. Six hundred and ninety completed questionnaires were obtained during the data collection period that took three weeks. The participants provided information on a voluntary basis and any person that received an email invitation was informed that they were under no obligation to participate in the research study. Respondents were provided the opportunity to contact Consulta Research (Pty) Limited and the researcher or the supervisors if they had any queries regarding the research study or data collection procedure.

Statistical data analysis was conducted by a professional statistician with more than twenty years' experience and included calculations of descriptive statistics, t-tests, analysis of variance (ANOVA), post-hoc tests, exploratory factor analysis and calculation of Cronbach's Alpha.

The quantitative research approach was used as little to no information concerning the wine knowledge of South African wine consumers and their CSC when selecting wine (WCSC) could be found, thereby creating a platform of knowledge that can be built onto.

4.2 RESEARCH METHODOLOGY

4.2.1 Population, sample and sampling

Researchers generally endeavour to ascertain answers to research questions pertaining to a study population by investigating a representative sample or unit of analysis from the study population to enable generalisations to the larger study population (Kumar, 2014:73-74, 382). This particular study was interested in wine consumers of South Africa (SA). Hence wine consumers across SA, who indicated that they actually drink and/ or purchase wine from time to time, were recruited. They were electronically invited to participate in this study admitting that there might be differences in the demographic characteristics of wine consumers in different provinces due to lifestyle differences. Even though the legal drink age in SA is 18 years, the study was limited to adults aged 21 years and older as these consumers are expected to know more about wine as a result of more product experiences as well as have a greater monthly income allowing them to purchase wine and possibly higher quality wines.

Several studies have shown differences – albeit not necessarily significant – in the wine preferences, perceptions, purchasing and consumption behaviour of different demographic groups (Allen, 2002; Atkin *et al.*, 2007; Batt and Dean, 2000; Bruwer and Li, 2007; Bruwer *et al.*, 2011; Low, 2001; Resnick, 2008; Sbrocco, 2003; Thach and Olsen, 2006). Little information regarding the influence of level of income and education is available and this study hoped to address this gap in knowledge. Therefore, apart from age, no restrictions were placed concerning gender, levels of income and education, or population groups. Respondents, however, had to be regular wine consumers and/or regular wine buyers, thus admitting that they consumed

or purchased wine at least once per month. A discriminating factor of this study is that the respondents had to be existing members of Consulta Research (Pty) Limited or sign up to their database if the respondents were invited via snowball sampling. Another discriminating factor is that the respondents needed access to an electronic device such as a computer/ laptop/ smart phone/ tablet and an internet connection. Respondents also had to be literate in English, and fairly computer-literate for them to complete the questionnaires independently.

Sampling is the process whereby respondents are selected from the study population (Kumar, 2014:282; Walliman, 2011:367). Due to time and financial constraints, a non-probability sampling method, namely convenience sampling, was used to recruit willing participants. Non-probability or non-random sampling methods infer that individuals of the study population are not chosen on an equal or independent basis (Kumar, 2014:234, 242). The associated advantages of convenience sampling relevant to this study, were that it is a cost-effective and time efficient method that allows relatively quick and easy access to participants across a larger geographic area (Bryman and Bell, 2011:105; Kumar, 2014:242-245). Two forms of convenience sampling were used, namely quota sampling, as the research company aimed to recruit more respondents of a specific demographic group that were underrepresented, with snowball sampling. Potential respondents were approached by Consulta Research (Pty) Limited according to their demographic characteristics, aiming to include a broad spectrum of wine consumers across the country. Once a respondent had completed the questionnaire, they were provided with the opportunity to invite friends, family or acquaintances to complete the questionnaire by forwarding the questionnaire link to acquaintances' email addresses as a way of snowball sampling (Babbie, 2016:188; Kumar, 2014:242-245). Disadvantages of both quota and snowball sampling methods are lack of representativeness of the sample to the broader population and selection bias (Kumar, 2014:242-245).

An initial sample size of five hundred completed questionnaires were envisaged. Usable questionnaires were envisaged considering the anticipated statistical inferences (Kumar, 2014:246-247; Walliman, 2011:188). This number was extended as the initial sample did not include an adequate number of respondents from the black population. The final sample size of usable, complete questionnaires was 690.

Generalisations of the overall study population, i.e. South African wine consumers could unfortunately not be made as the sample is not representative of the country's population and the subsets of the sample were too small to make valid generalisations. However, this research is still valuable as explorative research providing a foundation for future research and insight into wine consumers' wine knowledge and CSC when selecting wine.

4.2.2 Measuring instrument

Survey research, that involves structured questionnaires, as was done in the case of this study, is used to collect primary data (Walliman, 2011:176). Using a questionnaire, i.e. a list of questions pertaining to the study that had to be completed by the respondents in a structured way, best served the purpose considering the time and financial constraints of this study (Kumar, 2014:172, 379). A questionnaire is usually used to make generalisations pertaining to specific aspects of a population's behaviour, based on the findings from a smaller sample of the population (Creswell, 2014:13).

Due to the electronic nature of the questionnaire, there was no "geographical limitation" to reach wine consumers across SA and data was automatically captured in an electronic/digital format (De Vos *et al.*, 2011:189; Walliman, 2011:190). The responses were anonymous and although sensitive questions were limited, the fact that responses could not be trailed to specific individuals to ensure that answers would probably be more truthful. Respondents were also not time restricted in completing the questionnaire, also contributing to more accurate responses (Kumar, 2014:181; Walliman, 2011:190). An unfortunate disadvantage of the data collection method was that only literate respondents who could read and understand English and had access to a suitable electronic device could participate in this study. Generally, questionnaires have a low response rate and this was also true in this study as less than 10% of individuals who were invited, eventually completed the survey within the time period devoted to data collection (Kumar, 2014:181).

The electronic questionnaire comprised six sections, namely A) Wine Purchasing Behaviour, B) Subjective Knowledge of Wine, C) Objective Knowledge of Wine, D) CSC at Off-premise Locations, E) CSC at On-premise Locations and F) Demographics. A breakdown of the sections within the questionnaire, their respective questions and scales is provided in Table 4.1 that summarises the data analyses of the sections as linked to the respective research objectives.

Guidelines on the formulation of questions and the structure of questionnaires as comprised by authors of the research methodology field (Kumar, 2014:186-189; Walliman, 2011:191) were used in the development of the measuring instrument. The questionnaire primarily comprised closed-ended questions (see Appendix B) with a selected few open-ended questions in the demographic section. The use of closed-ended questions was to simplify and shorten the questionnaire and to be able to make it easier to integrate and compare responses. A shorter questionnaire also reduced the chances of fatigue and boredom in the respondents whilst completing the questionnaire.

Questions were restricted to only focus on the objectives of the study and related constructs; questions were formulated to be short, clear, to the point, non-leading and unambiguous; questions were formulated with

data analysis in mind, thus attending to suitable scales. The supervisors also provided their input before the questionnaire was sent to Consulta Research (Pty) Limited that handled data collection and who had to first convert the questionnaire into an electronic, interesting and user-friendly format (Kumar, 2014:186-189; Walliman, 2011:191). Two personnel members of Consulta Research (Pty) Limited, who frequently work with research in the Consumer Science field, were requested to convert the paper-based questionnaire to a user-friendly online version. The researcher first approved the electronic version before it was distributed.

TABLE 4.1: LAYOUT OF QUESTIONNAIRE

SECTION	CONCEPTS AND SCALES
A **Question 1 - Question 7**	**WINE PURCHASING AND CONSUMPTION** Seven questions established the respondents' interest in wine and their wine purchasing and consumption behaviour. Frequencies of consumption and purchasing were measured with the following scale: 1: daily, 2: twice or more per week, 3: once per week, 4: maximum twice per month, 5: occasionally, 6: never. The importance of information sources at on-premise and off-premise locations were explored and measured with a five-point Likert-type scale (1: not important, 2: little important, 3: neutral, 4: important, 5: very important).
B **Question 8 & Question 9**	**SUBJECTIVE WINE KNOWLEDGE (YOUR WINE KNOWLEDGE IN GENERAL)** Two questions investigated respondents' wine knowledge. Respondents' subjective wine knowledge was compared to others they know through a five-point Likert-type scale (1: novice/inexperienced; 2: limited; 3: moderate: 4: substantial; 5: expert). Secondly, respondents' subjective wine knowledge was compared to others they know, in terms of wine service, wine characteristics, wine and food pairing, wine selection and wine quality, through five questions, using a five-point Likert-type Agreement scale ranging from 1: strongly disagree to 5: strongly agree).
C **Question 10**	**OBJECTIVE WINE KNOWLEDGE (YOUR SPECIFIC WINE KNOWLEDGE)** This investigation was self-developed but inspired by a study conducted by Barber (2008), and Alba and Hutchinson (1987) who concluded that an objective test should not merely focus on product terminology but should also measure "task-relevant skills". Therefore, questions referred to knowledge concerning the situation, usage and consumption of wine with response options: true/ false/ I do not know.
D **Question 11**	**CSC† WHEN SELECTING WINE AT OFF-PREMISE LOCATIONS** Wine consumers' self-confidence at off-premise locations was investigated through 24 statements using a five-point Likert-type Agreement scale, ranging from 1: strongly disagree to 5: strongly agree (refer to Table 4.2).
E **Question 12**	**CSC WHEN SELECTING WINE AT ON-PREMISE LOCATIONS** Using the same questions and scale that were included in Question 11, consumers' wine self-confidence at on-premise locations were investigated (refer to Table 4.2).
F **Question 13 - Question 19**	**DEMOGRAPHIC CHARACTERISTICS** This section was used to obtain the demographic profile of the respondents and included questions regarding the respondents' age, gender, population group, level of education, total monthly household income, area of residence and whether they possessed some formal qualification in wine. This section was also used to check respondents' age, as 21 years was used as an inclusion criterion. All the questions, except age, were in categorical format.

†CSC: Consumer Self-Confidence

An initial pre-test was completed with a small group of wine consumers to ensure that the questions and the questionnaire were comprehensible and easy to complete and that the constructs were correctly interpreted. The supervisors of the study also perused the questionnaire before final distribution.

4.2.2.1 Objective wine knowledge scale

Several studies measured objective wine knowledge (Barber, 2008; Bruwer and Buller, 2012; Dodd *et al.*, 2005; Frøst and Noble, 2002; Hall, 2016; Kolyesnikova, Wilcox, Dodd, Laverie and Duhan, 2010; Mueller, Francis and Lockshin, 2008; Robson *et al.*, 2014; Van Dijk and Van Knippenberg, 2005). However, these studies used questions that are applicable to their market and/or country (see Appendix A for examples). SA has available an extensive variety of local and international wines with some lesser known varieties (to South Africans) (e.g. Sangiovese). Therefore, in the development of the objective knowledge scale, the questions were basic and focussed on general wine knowledge of regular South African wine consumers. A similar approach was followed by Mueller *et al.* (2008) and Bruwer and Buller (2012).

Questions, similar to other studies, that were included, were: A question on the alcohol content of table wine (Barber, 2008; Dodd *et al.*, 2005; Frøst and Noble, 2002); tannins present in wine (Dodd *et al.*, 2005); food and wine pairing (Bruwer and Buller, 2012); and grape cultivars (Barber, 2008; Frøst and Noble, 2002; Vigar-Ellis *et al.*, 2015) - although the latter was adapted to the South African context.

The response scale was also different from previous studies that opted for multiple choice questions (Barber, 2008; Frøst and Noble, 2002; Johnson and Bastian, 2007; Veale and Quester, 2009). A True or False scale was used in this study and an option for "I don't know" was included to elicit more truthful responses.

4.2.2.2 Subjective wine knowledge scale

Previous studies investigating subjective wine knowledge used the nine-question scale developed by Flynn and Goldsmith (1999) (Dodd *et al.*, 2005; Robson *et al.*, 2014; Vigar-Ellis *et al.*, 2015). Some researchers opted to use shorter scales to measure subjective knowledge (Forbes *et al.*, 2008; Perrouty, d'Hauteville and Lockshin, 2006; Robson *et al.*, 2014; Viot and Passebois-Ducros, 2010). Similarities of these scales included comparing the respondent's wine knowledge to others they know and how confident or competent the respondent feels about choosing wine.

Therefore, a general question regarding wine consumers' subjective wine knowledge was asked to ascertain how they perceive their own overall wine knowledge. Several other wine studies have used a similar question in their investigations (Barber, 2008; Bruwer and Buller, 2012; Viot and Passebois-Ducros, 2010).

A further five questions were asked to assess wine consumers' perceived wine knowledge pertaining to certain aspects of wine, such as food and wine pairing, wine service, wine quality and wine selection. This

differs from Mueller *et al.* (2008) who used the short subjective knowledge scale proposed by Perrouty *et al.* (2006). Refer to Appendix A for examples.

4.2.2.3 CSC scale

The questions related to CSC in sections D and E of the questionnaire were based on the Wine Self-Confidence Scale (WSCS) used by Olsen *et al.* (2003), who adapted the original CSC of Bearden *et al.* (2001) for use in a wine context (see section 2.8 for full discussion). The WSCS was used again in an American study by McClung *et al.* (2015) to validate the scale within the wine purchasing context. The adapted CSC scale used in this study was also successfully used in the South African context by Erasmus *et al.* (2015) in research regarding the selection of household appliances within the South African context. Table 4.2 shows the changes made to the WSCS of Olsen *et al.* (2003) and how the wording was adapted for the two sales contexts of this study.

4.2.3 Data collection

Consulta Research (Pty) Limited, ran a pre-test with a small group of wine consumers to detect possible problems with wording, instructions, constructs and the duration of the questionnaire. Pre-requisites for participation in the study were age (setting the minimum age for participation at 21 years), also requiring participants to consider themselves as so-called *wine consumers* who drink and/ or purchase wine on a regular basis. No restriction was put on gender, population group, income level, level of education or geographic location in SA. However, owing to the format of the questionnaire, respondents had to be literate, fluent in English, and have access to a personal computer, tablet or smartphone to access and complete the questionnaire.

Consulta Research (Pty) Limited emailed members on their database that fit the basic demographic selection criteria. A brief explanation of the study and a link to the questionnaire (see Appendix C) were provided in the email should they be willing to participate in the study. The first page of the questionnaire comprised a cover letter explaining the purpose of the study and the instructions for completion. By proceeding to the following page, the respondents gave their consent, which was a requirement according to the ethical requirements for research that involves human participants at Faculty of Natural and Agricultural Sciences (NAS) at the University of Pretoria.

TABLE 4.2: ADAPTATIONS TO THE MEASURING INSTRUMENT WCSC† SCALE (Olsen *et al.*, 2003)

DIMENSIONS	WCSC – Olsen *et al.* (2003)		OFF-PREMISE LOCATIONS		ON-PREMISE LOCATIONS	
	No	SCALE ITEMS	No	SCALE ITEMS	No	SCALE ITEMS
Decision-Making Information acquisition (IA)	1	I know where to find the information I need prior to making a purchase of wine (a wine purchase)	1	I know where to find the information I need prior to making a wine purchase	1	I know where to find the information I need prior to making a wine purchase
	2	I know where to look to find wine related information (I know where to look to find information)				
	3	I am confident in my ability to research wine purchases	2	I am confident in my ability to do an investigation about wine prior to a purchase	2	I am confident in my ability to do an investigation about wine prior to a purchase
	4	I know the right questions to ask when shopping for wine	3	I know the right questions to ask when shopping for wine	3	I know the right questions to ask when ordering wine
	5	I have the skills required to obtain needed information before making an important wine purchase	4	I have the skills required to obtain needed information before making a wine purchase	4	I have the skills required to obtain needed information before making a wine purchase
Decision-Making Consideration set formation (CSF)	6	I am confident in my ability to recognise a brand of wine worth considering	5	I am confident in my ability to recognise a good brand of wine worth considering	5	I am confident in my ability to recognise a good brand of wine worth considering
	7	I can tell which brands of wine will meet my expectations	6	I can tell which brands of wine will meet my expectations	6	I can tell which brands of wine will meet my expectations
	8	I trust my own judgement when deciding which brands of wine to consider	7	I trust my own judgement to identify good wine brands prior to a purchase	7	I trust my own judgement to identify good wine brands prior to a purchase
	9	I know which stores to shop at for wine				
	10	I can easily focus in on a few good brands of wine when making a decision	8	I can easily limit my focus on a few good brands of wine when making a decision	8	I can easily limit my focus on a few good brands of wine when making a decision
Decision-Making Personal outcomes (PO)	11	I often have doubts about the wine purchase decisions I make	9	I often doubt the wine purchase decisions I make	9	I often doubt the wine purchase decisions I make
	12	I frequently agonise over which wine to buy	10	I am frequently concerned about which wine to buy	10	I am frequently concerned about which wine to buy
	13	I often wonder if I have made the right wine selection				
	14	I never seem to buy the right wine for me	11	I never seem to buy the right wine for me	11	I never seem to buy the right wine for me
	15	Too often the wine I buy is not satisfying	12	Too often the wine I buy is not satisfying	12	Too often the wine I buy is not satisfying
Decision-Making Social outcomes (SO)	16	My friends are impressed with my ability to make good wine selections	13	My friends are impressed with my ability to pair wine and food	13	My friends are impressed with my ability to pair wine and food
	17	I impress people with the wine purchases I make	14	I impress people with the wine purchases I make	14	I impress people with the wine purchases I make
	18	I have the ability to give good gifts of wine	15	I have the ability to choose a good wine for an occasion	15	I have the ability to choose a good wine for an occasion
	19	I get compliments from others on my selections of wine	16	I receive compliments on my ability to distinguish between wines	16	I receive compliments on my ability to distinguish between wines

TABLE 4.2 continued…

DIMENSIONS	WCSC – Olsen *et al.* (2003)		OFF-PREMISE LOCATIONS		ON-PREMISE LOCATIONS	
	No	SCALE ITEMS	No	SCALE ITEMS	No	SCALE ITEMS
Protection Persuasion knowledge (PK)	20	I know when a wine salesperson or waiter is trying to pressure me to buy a particular wine	17	I know when a salesperson is trying to pressure me to buy a particular wine	17	I know when a waiter is trying to pressure me to buy a particular wine
	21	I can see through the gimmicks used to get people to buy wine	18	I can see through the sales gimmicks used to get people to buy wine	18	I can see through the sales gimmicks used to get people to buy wine
	22	I can separate fact from fantasy when I see advertisements	19	I have no trouble seeing through the bargaining tactics used by salespeople	19	I have no trouble seeing through the bargaining tactics used by waiters
			20	I have the ability to use sales gimmicks to my advantage	20	I have the ability to use sales gimmicks to my advantage
Protection Marketplace interfaces (MI)	23	I am unwilling to complain to a store manager about the service I receive when purchasing wine	21	I am unwilling to complain to a store manager about the service I receive when purchasing wine	21	I am unwilling to complain to a waiter about the service I receive when purchasing wine
	24	I do not like to tell the waiter that something is wrong with the wine	22	I do not like to tell the salesperson that it is the wrong wine for me	22	I do not like to tell the waiter that it is the wrong wine for me
	25	I am afraid to ask to speak to someone in a store or restaurant with expertise in wine	23	I am afraid to ask to speak to someone in a store with expertise in wine	23	I am afraid to ask to speak to someone in a restaurant, bar or hotel with expertise in wine
	26	I am too timid to speak up when a problem with the wine I choose in a restaurant	24	I am too timid to speak up when I have a problem with the wine I choose	24	I am too timid to speak up when I have a problem with the wine I choose
	27	I am hesitant to complain if the wine is served incorrectly in a restaurant				

†WCSC: Wine Consumer Self-Confidence

Data collection was conducted in a cross-sectional time frame over the course of three weeks, starting on 14 September until 4 October 2016, eventually producing six-hundred and ninety (N = 690) completed, useful questionnaires.

4.2.4 Data analysis

Data analysis refers to the process where numbers are grouped and assessed to find the meaning and/or relevance of relationships between them (Leedy and Ormrod, 2014:282; Walliman, 2011:209). Quantitative data analysis involves the use of suitable statistical tests that would be useful to address the study's objectives, questions or hypotheses (Creswell, 2014:416). SPSS 24.0 (the Statistical Package for the Social Sciences) was used to streamline the data analysis process and to efficiently generate easily interpreted data.

The responses of the respondents were automatically captured into an electronic format that could be exported to Excel. Thereafter, data was cleaned to ensure that data analysis could be performed without interruption (Diamantopoulos and Schkegelmilch, 2000:40). Data analysis was performed with the assistance of a qualified and experienced statistician who is knowledgeable in research in the Consumer Science field.

Both the statistician and supervisors of the study were involved in interpreting data in relation to the research objectives.

Data analyses in this study implied the following:

- Sections A-F: Descriptive statistical analyses (frequencies, percentages, means and standard deviations) were conducted to create an overview of the respondents'/ wine consumers' wine consumption and purchasing behaviour and their wine knowledge and CSC.
- Sections B-F: t-tests, analysis of variance (ANOVA) and post-hoc Scheffe tests were used to distinguish wine consumers' wine knowledge and their CSC on the two premises terms of their demographic characteristics and to indicate significant differences within and among the demographic subgroups as anticipated in the research objectives.
- Sections B and C (wine knowledge): Cronbach's Alpha were calculated to determine the internal consistency of the scales.
- Sections D and E (WCSC): Exploratory factor analysis using Principal Axis Factoring and Oblimin Rotation with Kaiser normalization was conducted on the WCSC sections to extract the prominent factors of the respondents' WCSC when selecting wine in different sales contexts, i.e. to reduce data to coherent factors that would be useful for further interpretation in the context of this investigation. Cronbach's Alpha was then calculated for the different factors to determine the internal consistency of items within the various factors to ensure the validity of further interpretations. Standardised effect size measurement, i.e. measuring the size of the significant difference or association between groups, was calculated for gender in all six factors.

4.3 OPERATIONALISATION

Table 4.3 gives a logical exposition of the objectives and the corresponding type of measuring instrument, questions and data analysis. The research objectives were formulated to capture the relevant concepts, dimensions and indicators for each objective. Sections of the measuring instrument devoted to specific objectives and sub-objectives and relevant data analysis are also indicated.

TABLE 4.3: OPERATIONALISATION TABLE

RESEARCH OBJECTIVE	SUB-OBJECTIVES	CONSTRUCTS	DIMENSIONS	INDICATORS	MEASUREMENT	DATA ANALYSIS
1. To investigate and describe wine consumers' knowledge of wine and to distinguish significant differences within and among gender, age, income and population group categories.	1.1 To investigate and describe wine consumers' **objective knowledge** of wine, and to distinguish significant differences among gender (1.1.1), age (1.1.2), income (1.1.3) and population group (1.1.4) categories.	Knowledge; Wine knowledge	Objective knowledge	<u>Specific/ factual and self-assessed knowledge of:</u> • Wine characteristics • Correct serving of wine • Food and wine pairings • Wine quality • Wine selection	Questionnaire (Appendix B): Sections C (V10) and F	Descriptive statistics (frequencies, percentages, means, standard deviations), t-tests, ANOVAs and post hoc Scheffe post hoc tests.
	1.2 To investigate and describe wine consumers' **subjective knowledge** of wine, and to distinguish significant differences among gender (1.2.1), age (1.2.2), income (1.2.3) and population group (1.2.4) categories.		Subjective knowledge		Questionnaire (Appendix B): Sections B (V8 & V9) and F	
2. To investigate and describe wine consumers' consumer self-confidence when selecting wine in different contexts and to distinguish significant differences within gender, age, income and population group categories.	2.1 To investigate and describe wine consumers' CSC when selecting wine at **off-premise** locations, and to distinguish significant differences among gender (2.1.1), age (2.1.2), income (2.1.3) and population group (2.1.4) categories.	Consumer self-confidence (CSC); Wine consumer self-confidence (WCSC)	Off-premise locations	<u>CSC Dimensions:</u> • Information acquisition (IA) • Consideration set formation (CSF) • Personal outcomes (PO) • Social outcomes (SO) • Persuasion knowledge (PK) • Marketplace interfaces (MI)	Questionnaire (Appendix B): Sections D (V11.1-11.24) and F	Descriptive statistics (frequencies, percentages, means, standard deviations), t-tests, ANOVAs and post hoc Scheffe post hoc tests. Exploratory factor analysis using Principal Axis Factoring and Oblimin rotation with Kaiser normalization; Cronbach's Alpha and standardised effect size for gender.
	2.2 To investigate and describe wine consumers' CSC when selecting wine at **on-premise** locations, and to distinguish significant differences among gender (2.2.1), age (2.2.2), income (2.2.3) and population group (2.2.4) categories.	Consumer self-confidence (CSC); Wine consumer self-confidence (WCSC)	On-premise locations		Questionnaire (Appendix B): Sections D (V12.1-12.24) and F	

4.4 QUALITY OF THE STUDY

4.4.1 The importance of the research design and methodology

The quality of a research study involves the entire approach to the study including the review of previous research and literature, but eventually depends on the research design and methodology that were chosen and how carefully and meticulously the study was executed. This inevitably also depends on financial-, human- and time resources that are available to the researcher (Babbie, 2016:278; Wagner, Kawulich and Garner, 2012:89).

The major constraints of this study were time and financial resources as the study had to be completed within two years on a tight budget. One measure taken to overcome time constraints was to follow a quantitative research approach, to design the research to be completed in a single phase using an electronic questionnaire and to trust a reputable research company to collect data across SA, which would have been impossible for the researcher otherwise. This restricted data collection to a period of three weeks.

Convenient, snowball and quota sampling methods were used for their advantages, i.e. it is less time consuming, more affordable than other techniques, ease of accessibility to target group, and convenience (Kumar, 2014:244; Walliman, 2011:188). Thus, by using the existing consumer database of Consulta Research (Pty) Limited, it was easy to gain access to potential wine consumers across SA without physically having to travel; making it more convenient, cheaper and less time consuming. Through this process, the researcher gained access to enough respondents (N = 690) to merit the required statistical analysis and to make worthy inferences concerning subsets of the sample, for example gender groups (e.g. male versus female wine consumers) (Kumar, 2014:233). A disadvantage of this sampling method is that it is a non-probability sampling method and therefore one cannot make generalisations to the bigger population (i.e. all South African wine consumers) as only those wine consumers subscribed to the database of Consulta Research (Pty) Limited who had access to a suitable electronic device could participate in the study (Creswell, 2014:158-159; Salkind, 2013:192-193).

The measuring instrument in this study was a structured electronic questionnaire that ensured anonymity for respondents who might otherwise have been hesitant to include income information or disclose sensitive information, such as income level or frequency of wine consumption. This consequently provided opportunity to collect more accurate responses. Secondly, this method is cheaper by saving time and using less financial resources than interviews for example (Babbie, 2016:279-280; Kumar, 2014:181; Wagner *et al.*, 2012:102).

The researcher's possible bias when capturing answers was eliminated because questionnaires were self-administered (Creswell, 2014:157; Kumar, 2014:178-179; Salkind, 2013:218). A disadvantage of the study in

the South African context is it excluded individuals not English-literate and/or individuals who were not computer-literate at the time of data collection (Kumar, 2014:181; Wagner *et al.*, 2012:95-96). Questionnaires generally have a low response rate, as was in the case of this study (lower than 10% response rate), producing self-selecting bias, i.e. respondents who completed the questionnaires may have different attitudes, attributes or motivations than those who chose not to participate in the study (Kumar, 2014:181-182; Leedy and Ormrod, 2014:237). Another disadvantage is that questionnaires do not allow the researcher to gain deeper insight or resolve unclear responses (Babbie, 2016:280; Kumar, 2014:182). Follow-up focus groups as a second phase of the study, i.e. qualitative phase, could have produced deeper insight in this study into wine consumers' knowledge of wine and their self-confidence when selecting wine.

4.4.2 Validity

The validity of the study concerns issues relating to data that should accurately address the pre-set objectives of the study (Walliman, 2011:204). The types of validity accounted for in this study were theoretical-, construct-, content-, criterion-, face- and inferential validity as indicated in Figure 4.1.

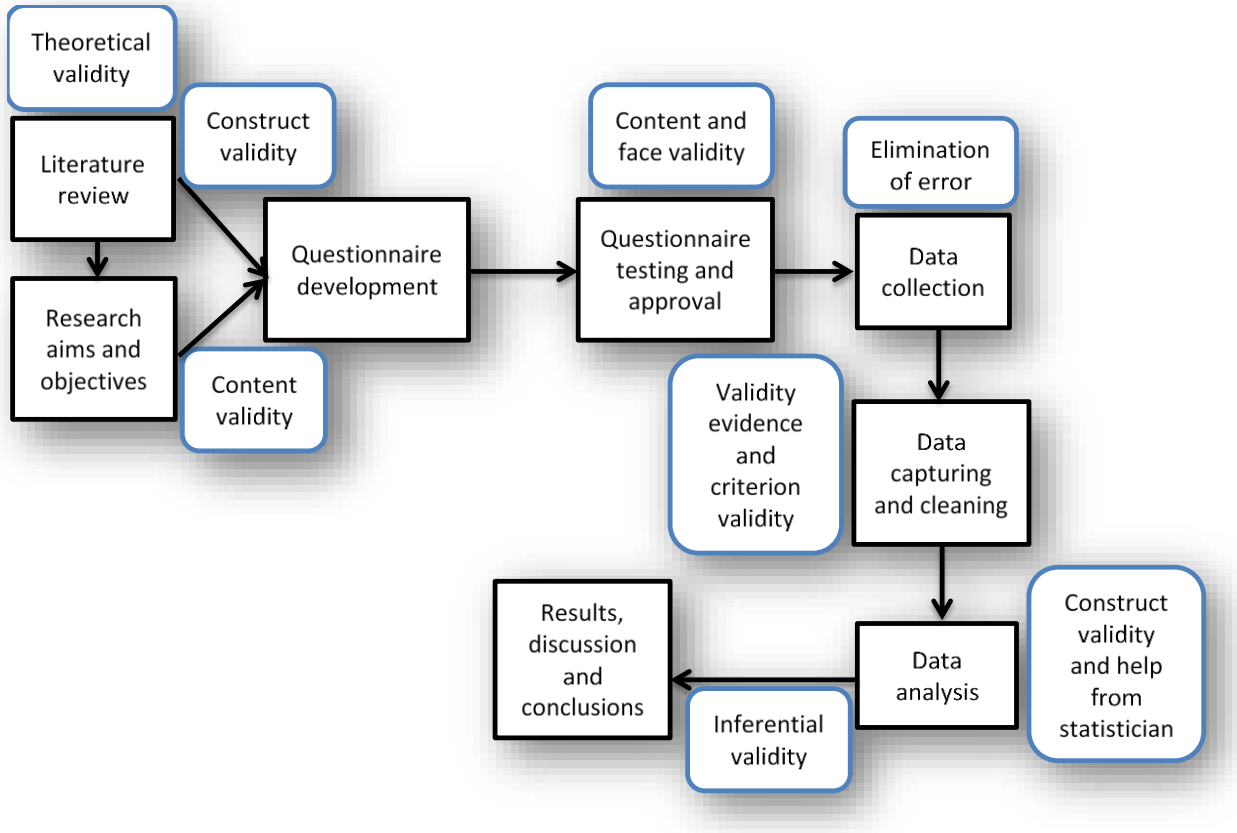

FIGURE 4.1: APPLICATION OF VALIDITY IN THE RESEARCH PROCESS

4.4.2.1 Theoretical validity

Theoretical validity is ensured by correctly identifying the concepts to be used in the study and to correctly conceptualise these concepts (MacKenzie, 2003; Mounton and Marais, 1996; Welman, Kruger, Mitchell and Huysamen, 2005). A thorough literature review identifying and explaining the background of the concepts was conducted to ensure theoretical validity. The literature review also served as the basis for the conceptual framework and operationalisation of the constructs and referred to extant research that could be used to identify gaps in literature (Hart, 1998:12-13).

4.4.2.2 Validity of the measuring instrument

A measuring instrument has **construct validity** when it measures characteristics (constructs) that cannot be ascertained by direct observation but exists due to behavioural patterns or previous knowledge indicating that such characteristics exist (Bagozzi *et al.*, 1991; Leedy and Ormrod, 2014:91; Peter, 2015; Salkind, 2013:175). A thorough literature review was conducted to explicate the constructs and to gain insight in previous research on the topics (wine knowledge and CSC) to ensure that the theoretical constructs used were accurate and relevant. An existing measuring instrument, the WSCS, previously validated in a wine context was used in this study (Salkind, 2013:176). A pre-test of the questionnaire was conducted to ensure that the constructs were comprehensible and that it would produce appropriate data for further statistical analysis (Kumar, 2014:215). In addition, the results and findings of the study were compared to those found in the literature (Creswell, 2014:176-177). Construct validity was further ensured by EFA and by determining the relationships between the scale items in each factor.

In layman's terms, **face validity** ensures that the concepts or characteristics in question are appropriately captured in the measuring instrument and this is often assessed subjectively by the researcher and other experts in the field (Bryman and Bell, 2011:38; Leedy and Ormrod, 2014:91; Maithel *et al.*, 2006). All the concepts included in the measuring instrument were linked to specific objectives of the study to ensure that all of the concepts were captured (Kumar, 2014:214). Face validity of the electronic questionnaire was assessed by academic and industry experts before the questionnaire was launched.

Content validity focusses on the content of the measuring instrument and its ability to measure what is intended to be measured or its ability to cover all of the questions within this study (Cooper and Schindler, 2008:209; Leedy and Ormrod, 2014:91). Content validity in this study was evaluated from various perspectives: by the supervisors who are knowledgeable in this field; a professional statistician from the Department of Statistics at the University of Pretoria who specifically attended to anticipated analyses in conjunction with the objectives of the study; comparison to related research studies and measuring instruments/techniques that were successful; a pre-test whereby problems could be identified beforehand (Leedy and Ormrod, 2014:91-92; Salkind, 2013:174; Wagner *et al.*, 2012:81).

Criterion validity refers to how well a test relates to a criterion/ construct in question and entails *concurrent* and *predictive validity* (Kumar, 2014:214-215; Leedy and Ormrod, 2014:92; Salkind, 2013:174-175). Concurrent validity is concerned with proper assessment of a criterion while predictive validity is concerned with some certainty that the test used, is able to adequately predict a criterion (Salkind, 2013:174). Often more than one test is used to ascertain criterion validity and to compare findings with other, similar studies (Creswell and Plano Clark, 2011:210).

Inferential validity is achieved when all possible effort is made throughout all the stages of the research process to ensure that the findings and conclusions drawn from the specific data set are valid (MacKenzie, 2003; Moshman and Franks, 1986). All along, a professional statistician was involved in this study to oversee data analyses and to ensure that the inferences drawn from data were indeed valid.

4.4.2.3 Validity issues

As explained above and indicated in Figure 4.1, all possible measures were taken to ensure validity throughout the research process. However, external validity, i.e. that generalisations can be made from the sample to the population, was not possible as the sample of this study was not representative of the population as a whole. To ascertain predictive criterion validity and reliability, the study with the measuring instrument should be repeated to determine whether similar results would be obtained (De Vos *et al.*, 2011:162-163; Salkind, 2013:174-175).

4.4.3 Reliability

Reliability, per se, focusses on the ability of a measuring instrument to be "free of random or unstable error" (Cooper and Schindler, 2008:181, 259-261). This can be achieved through inclusion of repetitions of the same measurement whereby results can be compared (De Vos *et al.*, 2011:162-163). This, however, increases the duration of a questionnaire and adds to frustration when respondents have to complete similar questions. In this study the reliability of the survey was ensured by using a single questionnaire format for all the respondents to complete that standardised the data collection procedure (Leedy and Ormrod, 2014). Regarding the problem of "random or unstable error", which refers to the unknown nature of the participants' moods at the time when completing the questionnaire, a researcher has minimal control other than to emphasise that respondents should be willing to complete the questionnaires and that they should not be rushed or put under pressure when they fail to return questionnaires in time. Effort was made to limit the duration of the questionnaire to prevent fatigue and by indicating upfront on the cover page that it would take up to 20 minutes to properly complete. Questions and instructions were kept simple and specific. The research company, Consulta Research (Pty) Limited, assisted in the design of an electronic questionnaire that seemed like fun and was not complicated to complete. A further measure taken to ensure reliability was to

calculate Cronbach's Alpha where relevant, aiming not to accept values unless ≥ 0.60, i.e. internal reliability (Zikmund and Babin, 2010:248).

4.5 ETHICS

Ethical considerations are important when conducting research. Creswell (2014:92-101) identifies key areas that require ethical consideration, namely the consideration of ethical issues prior to commencing with research; the data collection procedure itself, e.g. by being honest with the participant; data analysis e.g. by respecting the privacy of participants and when reporting, sharing and storing of data, a researcher is not allowed to fabricate any data or tamper with it. This concurs with authors like Kumar (2014:282-289), Walliman (2011:240-259), Salkind (2013:149-153) and De Vos *et al.* (2011:114-126).

This study addressed the following:

Ethical approval: Ethical approval was attained from the UP Ethics Committee of the Faculty of Natural and Agricultural Sciences (NAS) (refer to Appendix D). The ethics application clearly stipulated the research design and methodology of the study especially since the study involved human participants and wine (Walliman, 2011:264,265). Wine, an alcoholic beverage, may be regarded by many as a sensitive subject matter due to for example religious beliefs, medical reasons or history of alcohol abuse. In these cases, data collection could potentially produce sensitive responses. Therefore, ethics were carefully considered throughout the research to protect participants, to protect the validity of data and to ensure academic integrity.

Plagiarism: Academic integrity was protected by refraining from plagiarism of any kind and authors of the literature and ideas presented in this dissertation were acknowledged through appropriate referencing techniques (refer to Appendix E) (De Vos *et al.*, 2011:123; Kumar, 2014:289; Walliman, 2011:240-241).

Epistemology or theoretical perspective: In terms of ethics, a theoretical perspective is important in establishing "ground rules" for other researchers to understand from which perspective data analysis in the study was approached (Walliman, 2011:245). The theoretical perspective that underpinned this study is the RCT; a widely used and well-known theory to explain human behaviour in the research fields of Sociology, Economics, Criminology and Anthropology.

Voluntary participation and informed consent: A cover letter informed respondents that participation was voluntary and that they could withdraw at any time whilst completing the questionnaire. The respondents were requested to give their consent prior to completing the questionnaire (De Vos *et al.*, 2011:116-117; Kumar, 2014:284; Salkind, 2013:150).

Protection from harm and right to privacy: The cover letter also provided information regarding the nature of the study and what is expected of the respondent. The respondents were further protected by ensuring

anonymity of their responses. The researcher and supervisors' details were provided in the cover letter should the respondents want to know more about the study or verify the authenticity of the study (refer to Appendix F) (De Vos *et al.*, 2011:115; Kumar, 2014:286; Salkind, 2013:149-150). The Code of Ethics for Research of the University of Pretoria emphasises the importance of upholding high ethical standards when conducting research. Some of the key values stipulated in the NAS Ethics Code of Conduct and relevant to this study were respect for the individual, professionalism and social responsibility. Respect for individuals involved in the study, albeit the respondents (human subjects), industry experts or academic leaders were regarded as very important. The researcher acted professionally and with integrity in all matters related to the research study by specifying her name and affiliation with the University and the purpose of the investigation clearly, also not interfering with respondents or data during the research process. Social responsibility was addressed by focussing on the wine consumer and how to improve the experience of wine selection in sales contexts.

Deception of respondents: At no point were the respondents deceived in any way. The information in the cover letter of the questionnaire was truthful and served to communicate the nature and aim of the study. Furthermore, no deceiving, ambiguous or leading questions were asked (De Vos *et al.*, 2011:118-119; Walliman, 2011:271). The research design and methodology were designed in such a way that wine sampling was unnecessary and therefore it did not form part of the aims or objectives of the study. Furthermore, the questionnaire was designed to refrain from any sensitive questions that could relate to religious beliefs or alcohol abuse that might have upset some of the respondents. Questions were phrased to avoid offending respondents that may regard wine as a sensitive subject (Kumar, 2014:285-286; Walliman, 2011:253-256) .

Actions and competence of researchers: It is important to note that this study was completed at Master's level, i.e. the researcher is still a student of the research process. To ensure that the research of this study is on par, supervisors and other contributors, such as a statistician, reviewed the research process throughout, including the data collection process, data analyses and write-up steps to ensure that the research is conducted in an ethical manner (De Vos *et al.*, 2011:123).

Data and interpretation: To ensure validity of data, no data was fabricated in any manner. Moreover, data was analysed and verified by a qualified and professional statistician and the utilisation of appropriate statistical programs such as SPSS. Care was taken during the interpretation, representation and releasing of data and conclusions to the academic and commercial domains as to be respectful and truthful to all parties involved. Shortcomings that were detected are disclosed in Chapter 6.4. Lastly, the supervisors of the study reviewed the data and provided guidance and expertise throughout the research process to ensure truthful and accurate interpretation of data (De Vos *et al.*, 2011:119; Salkind, 2013:152; Walliman, 2011:242,257).

Assistance from contributors: The National Research Fund (NRF) provided funding for the research but in no way influenced the outcomes of the study. Furthermore, the researcher complied with all the rules and regulations as set out by the NRF, that funded the student's studies. Other contributors included the supervisors of the study, a statistician and a proofreader who have all been acknowledged for their respective contributions.

4.6 SUMMARY

The research design and methodology were specifically chosen and designed to suit the type of study and the actual time and financial limitations without jeopardising the quality of the research. This quantitative survey design was conducted through an electronic questionnaire. The unit of analysis comprised male and female wine consumers of various population groups and levels of income and education across SA, aged 21 years and older. Data collection took place in September and October of 2016 and the convenience sampling procedure yielded 690 usable questionnaires. Thereafter, data analysis was conducted with the assistance of a professional statistician, using descriptive and inferential statistical methods. Validity and reliability of data were attended to throughout the research process as outlined in Sections 4.4 and 4.5. The study also strictly complied to the guidelines for ethical research of Faculty of Natural and Agricultural Sciences (NAS) of the University of Pretoria to ensure fair and transparent research outputs. The results, conveniently presented in table and graph formats, are discussed in the following chapter.

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CHAPTER 5

Results and Discussion

This chapter presents the results of the study in accordance with the objectives of the study, supplemented with discussions of the findings in terms of extant and relevant literature.

5.1 INTRODUCTION

This chapter presents the results of the study. The questionnaire that was used for data collection was designed to investigate all the constructs contained in the objectives of the study. Statistical analyses of data included descriptive and inferential statistics as outlined in Table 4.3.

Descriptive statistics served to provide preliminary insights of data and to describe the findings that emerged from the quantitative data through percentages, means, standard deviations and a range of scores that are easily depicted by figures, graphs and charts (Creswell, 2014:242; Diamantopoulos and Schkegelmilch, 2000:31,73-74). Inferential statistics were conducted on data from the sample to infer the wine knowledge and CSC of the wine consumer population of South Africa (SA) (Diamantopoulos and Schkegelmilch, 2000:65; Kranzler, 2011:31). Exploratory factor analysis was conducted to extract the relevant underlying dimensions or factors that measured the same construct (Diamantopoulos and Schkegelmilch, 2000:216) regarding CSC.

The demographic profile of the sample is presented first followed by the results of the of the study in the order of the objectives for the study.

5.2 DEMOGRAPHIC PROFILE OF THE SAMPLE

The demographic section that included sensitive questions such as age, gender, population group and household income, was presented at the end of the questionnaire to ensure that respondents were not discouraged at the start of the survey. The demographic section also included questions regarding the respondents' highest level of education area of residence and wine qualification (if applicable). The latter is discussed in Section 5.3.1 Wine consumers' interest in wine.

Consulta Research (Pty) Limited Invited prospective candidates on their database who fit the sampling criteria, by email to participate in the survey. Six hundred and ninety respondents (N = 690) accepted the

invitation and completed the online questionnaire within three weeks. Initially, there was a lack of black, coloured and Indian respondents who completed the questionnaire. As a result, Consulta Research (Pty) Limited tried on multiple occasions to encourage more respondents of these population groups to take part but several responded that they "are not really wine drinkers" or "do not drink wine".

The demographic profile of the sample was predominately male and white, between the ages of 52-70 years with a tertiary qualification and from the middle-income groups (≥R25 000 but <R50 000 monthly), residing in Gauteng (see Figure 5.1).

5.2.1 Gender distribution of the sample

A sample comprised of males and females was desired as previous studies have indicated differences, albeit significant differences or not, between males and females concerning taste perception of wine (Atkin *et al.*, 2007; Bruwer and Li, 2007; Wenzel, 2005), wine knowledge (Barber, 2008; Forbes, 2012; Robson *et al.*, 2014), wine preference (Bruwer *et al.*, 2011; Hoffman, 2004), wine purchasing, wine selection and wine consumption behaviour (Bruwer and Johnson, 2005; Bruwer and Li, 2007; Bruwer *et al.*, 2011; Low, 2001; Ritchie, 2007; Sbrocco, 2003) in different sales contexts (Bruwer and Johnson, 2005; Low, 2001; Resnick, 2008; Sbrocco, 2003). Hence, an equal distribution of males and females was desired to investigate if there are significant differences between males and females regarding the above-mentioned circumstances corresponding with the study's objectives of wine knowledge and CSC.

Of the six hundred and ninety respondents (N = 690) respondents, 57.4% were males (n=396) and 42.6% were females (n=294). The gender distribution of the sample (see Table 5.1) was satisfactory even though the sample comprised of more males than females. Generally, females are more inclined to participate in survey research studies (Sax, Gilmartin and Bryant, 2003; Smith, 2008; Underwood, Kim and Matier, 2000) as was the case in studies by the following authors who specifically worked on wine research (Atkin *et al.*, 2007; Barber *et al.*, 2008a; Saad, 2005; Yuan, So and Chakravarty, 2005).

TABLE 5.1: GENDER DISTRIBUTION OF SAMPLE (N = 690)

Gender	n	%
Male	396	57.39
Female	294	42.61

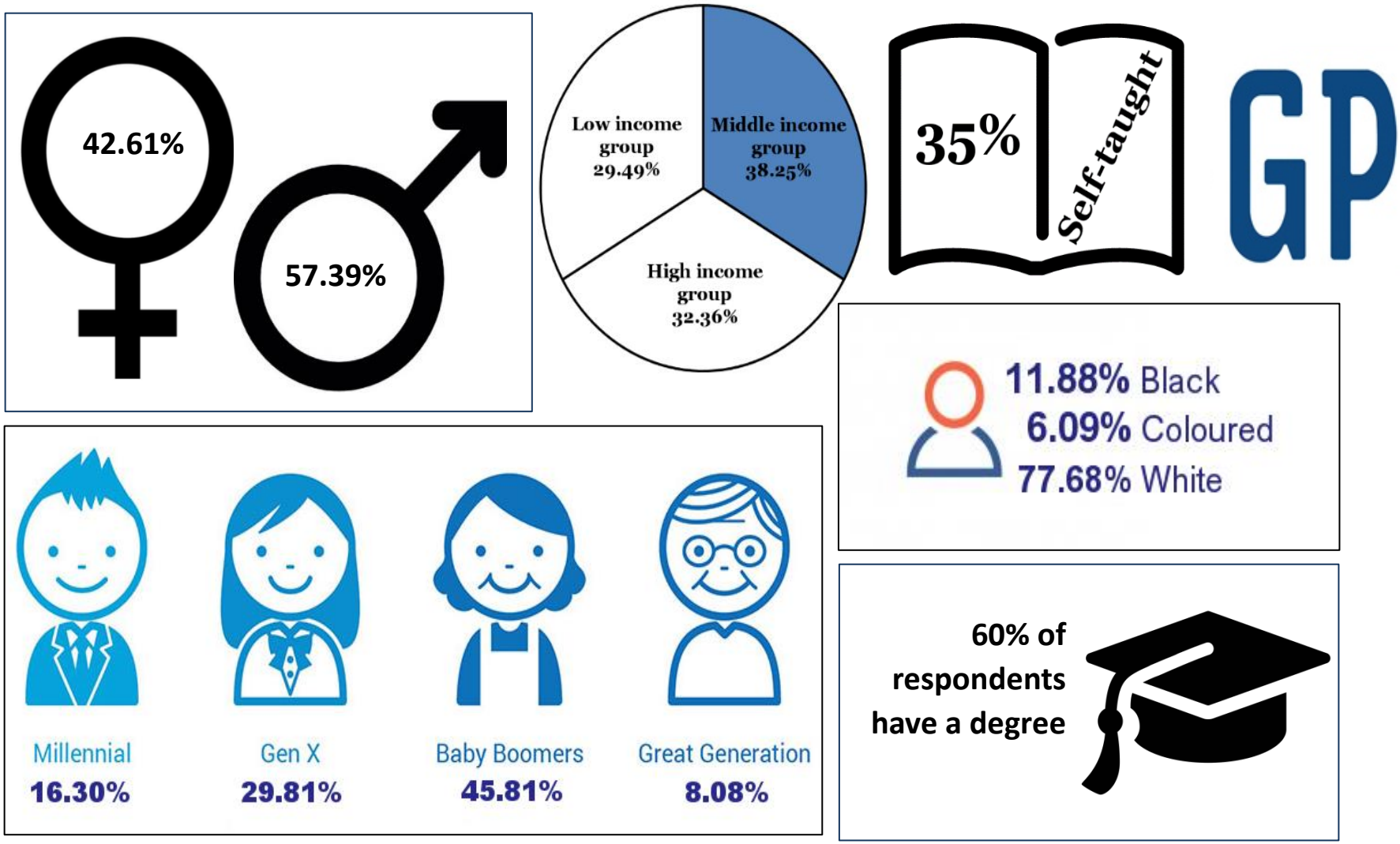

FIGURE 5.1: VISUAL SUMMARY OF DEMOGRAPHIC PROFILE OF SAMPLE

Some researchers have found that men tend to respond to web-based surveys more so than women (Diment and Garrett-Jones, 2007; Kwak and Radler, 2002; McCabe, Couper, Cranford and Boyd, 2006; Tomsic, Hendel and Matross, 2000). The good representation of men in this study can be, since they were interested in the topic, or that the electronic survey was more appealing to them than to their female counterpart. In a study investigating the importance of wine bottle closures amongst Texan wine consumers, the majority of respondents were also male (n=163, 54%) (Barber *et al.*, 2009b). Similarly, studies of Charters *et al.* (1999); Thomas and Pickering (2003) also had a majority of men in the sample. The sizeable representation of both genders enabled meaningful comparisons.

5.2.2 Age distribution of sample

Respondents had to be 21 years and older to participate in the study as these consumers are expected to have had more product experiences and have a greater monthly income allowing them to purchase wine and possibly higher quality wines than at age 18. As such, age was used as a control measure in the study. Respondents were asked to specify their exact age at their last birthday (at the time of data collection in 2016) and the respondents were categorised into four age categories namely the Greatest Generation (Traditionalists), Baby Boomers, Generation X (GenXers) and Millennials. Table 5.2 and Figure 5.2 indicate the age distribution of the sample as divided into the aforementioned four categories. The majority of the sample formed part of the Baby Boomers category (52-70 years) (n=312, 45.81%) and the second largest group of respondents fell under Generation X (35-51 years) (n=203, 29.81%). Respondents 71 years and older formed the smallest sample group by age and this can be contributed to this group being less tech-savvy and would not generally be a member of Consulta's panel. The mean age of the sample was 51.60 years with a standard deviation of 14.37 years. Nine respondents preferred not to state their age. The mean age of the sample falls within the middle-aged group, indicating that these wine consumers probably have ample experience with wine thus competent to complete the questions in terms of the product of investigation (Melo, Colin, Delahunty, Forde and Cox, 2010a).

Previous studies have focussed on the differences in wine knowledge (Atkin and Thach, 2012; Robson *et al.*, 2014; Viot and Passebois-Ducros, 2010), wine selection, wine perception and wine consumption (Allen, 2002; Batt and Dean, 2000; Bruwer, 2002; Bruwer, 2004; Bruwer *et al.*, 2011; Euromonitor, 2007; Murphy, 1999; Thach and Olsen, 2006), wine preference (Bruwer *et al.*, 2011; Lewis, 2004; Low, 2001), wine purchasing (Bruwer *et al.*, 2011; Teagle *et al.*, 2010; Wright, 2006) (Resnick, 2008) in different sales contexts (Bruwer *et al.*, 2011). Differences in age groups' wine knowledge and CSC were investigated based on the findings and recommendations of these and other previous studies.

TABLE 5.2: AGE DISTRIBUTION OF THE SAMPLE (N = 681; MISSING: n = 9)

Millennials (21-34 years)		Generation X (35-51 years)		Baby Boomers (52-70 years)		Greatest Generation (71+ years)	
n	%	n	%	n	%	n	%
111	16.30	203	29.81	312	45.81	55	8.08

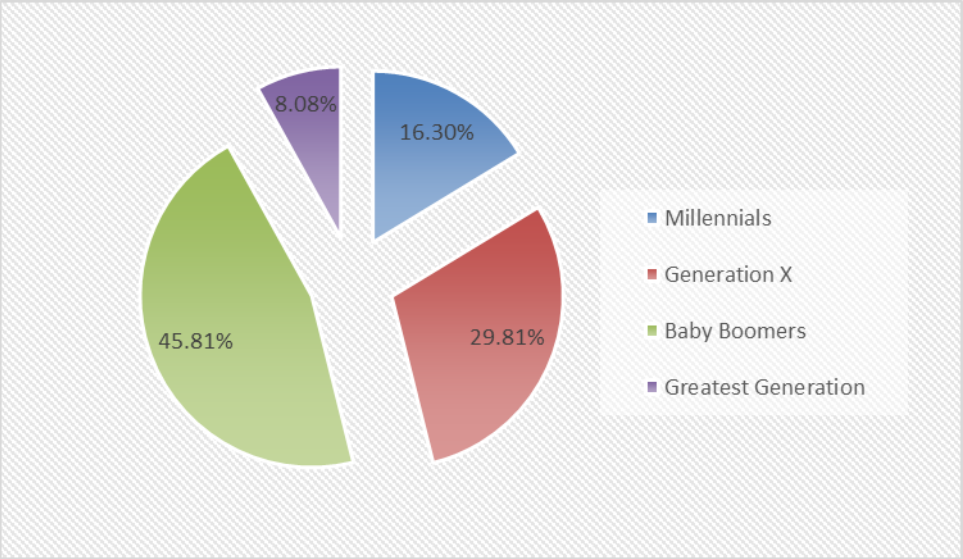

FIGURE 5.2: AGE GROUP DISTRIBUTION OF SAMPLE (N = 681; MISSING; n = 9)

5.2.3 Respondents' highest level of education

Respondents were asked to indicate their highest level of education, which is visually presented in Figure 5.3. There were 11 education categories to choose from, which were later refined to five categories, namely Lower than grade 12, Grade 12, Degree (incl. Honour's degree), Postgraduate qualification, and Unclassified. Most of the respondents possessed a degree (n=418, 60.58%), including individuals with either a bachelor's degree or a bachelor's- and an honour's degree. The sample included 120 individuals with postgraduate qualifications, e.g. master's or master's and PhD's (17.39%). Therefore, a great portion of the sample is well-qualified. Another recent South African study investigating consumers' acceptance of green wines produced similar results although that study included a larger group of wine consumers possessing a postgraduate qualification (43%) (Heyns, Herbst and Bruwer, 2014). Almost 20% of the sample completed secondary school and/or were busy with a bachelor's degree (n=135, 19.57%). A small percentage of the sample's education level was lower than Grade 12 (n=13, 1.88%), while four respondents refrained from disclosing their educational status (0.58%).

Usually, consumers with a higher level of education have a greater disposable income (Goyder, Warriner and Miller, 2002; STATS SA, 2011; Turčínková and Stávková, 2012), increasing access to wine. Increased

experience with wine is associated with more knowledge on wine due to more product exposure/usage experience (Hussain *et al.*, 2007)(see Appendix G). The respondents' highest level of education does not form part of the objectives or sub-objectives of the study; however, it provides the researcher and reader with a better understanding of the wine consumers' demographic profile of this sample.

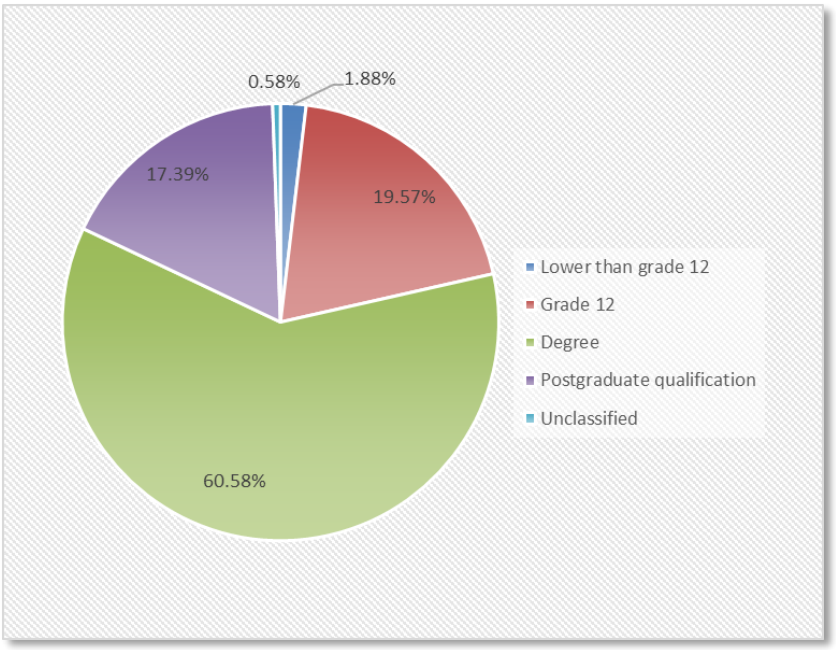

FIGURE 5.3: LEVEL OF EDUCATION OF SAMPLE (N = 690)

5.2.4 Population representation in the sample

Most of the previous studies conducted on wine knowledge, preference and consumption have focussed on a single population group (Bruwer and Buller, 2012; Bruwer *et al.*, 2002; Li, Wang and Van der Lee, 2016; Mitchell and Hall, 2001) or did not differentiate between population groups in their unit of analyses (samples). The few studies that focussed on various population groups/ races/ ethnicities investigated the relationships between population groups and wine consumption (Hussain *et al.*, 2007) and health perceptions (Chang *et al.*, 2016; Thach and Olsen, 2016). Therefore, investigating the differences in wine knowledge and CSC of wine consumers from various population groups is still somewhat unchartered territory. Due to the diversity of the population groups in SA, it was imperative for the study to endeavour to involve all population groups. Due to the large gap in disposable income between the rich and the poor of SA and the fact that SA has characteristics of developing and developed countries (Layne, 1998); it creates a unique opportunity for research concerning wine consumers and their characteristics.

The Employment Equity Act of SA distinguishes between four broad population groups, i.e. black, coloured, white and Indian. Foreign nationals and the Asian population group categories were included with the so-

called “Other” category. Table 5.3 and Figure 5.4 (visually) indicate the representation of population groups in the sample. The sample consisted predominantly of individuals from the white population group (n=536, 77.7%). The remaining population group categories in the sample were: black (n=82, 11.9%), coloured (n=42, 6.1%), Indian (n=20, 2.9%) and other (n=10, 1.4%). The number of respondents from the Indian population group was too low to keep separate and therefore they were included in the other population group category for the purpose of data analysis (factor analysis). There were no (self-ascribed) Asian respondents in the sample.

Some studies have found that minority groups and non-white groups are less likely to participate in surveys and often require follow-up reminders to gain their participation (Couper, Traugott and Lamias, 2001; Underwood *et al.*, 2000; Voigt, Koepsell and Daling, 2003). Sax *et al.* (2003) did not find an effect of population group on the likelihood to respond to surveys. Initially, there was a lack of black, coloured and Indian respondents who completed the questionnaire. Consulta Research (Pty) Limited tried on multiple occasions to reach more respondents of the population groups that were not well presented, but most of them responded that they “are not really wine drinkers” or “do not drink wine”. The researcher decided that it would not be ethical to exert further pressure and given the time limit for completion of the study, it was decided to continue with the sample as is.

TABLE 5.3: REPRESENTATION OF POPULATION GROUPS IN THE SAMPLE (N = 690)

Categories in the questionnaire	n	%	Categories of investigation	n	%
Black	82	11.88	Black	82	11.88
Coloured	42	6.09	Coloured	42	6.09
Indian	20	2.90	White	536	77.68
White	536	77.68	Other (Incl. Indian)	30	4.35
Other	10	1.45			

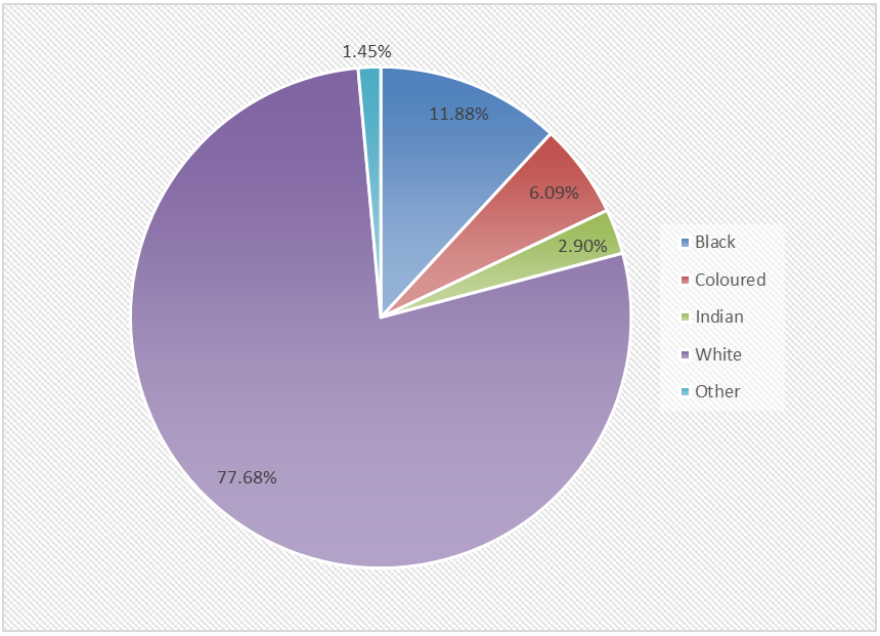

FIGURE 5.4: REPRESENTATION OF POPULATION GROUPS OF THE SAMPLE (N = 690)

5.2.5 Household income of sample

Respondents were asked to indicate their monthly household income (joint income of spouses/ partners) before tax deductions. Few studies have focussed on household income and its relationship with wine knowledge and wine selection, therefore it was included in this study as it allows for better determination of the demographic profile of the wine consumers that constitute the sample. Individuals with a greater disposable income will have fewer limitations concerning purchasing wine and may have more usage experience and knowledge of wine.

The total monthly household income (HHI) was more or less evenly distributed as can be seen in Table 5.4 and Figure 5.5 (visually). The low to lower-middle income group, i.e. earning less than R25 000 per month constituted 29.49% (n=202) of the sample; the middle-income group earning R25 000 up to R50 000 per month constituted 38.25% (n=262) of the sample, and 32.26% (n=221) of the respondents earned R50 000 or more per month and therefore belonged to the upper income group. Five respondents chose not to disclose their monthly household income.

TABLE 5.4: MONTHLY HOUSEHOLD INCOMES (BEFORE TAX DEDUCTIONS) OF SAMPLE (N = 685; MISSING: n = 5)

Monthly household income (HHI) categories	n	%
Low income to lower-middle income groups: < R25 000	202	29.49
Middle income group: ≥ R25 000 but < R50 000	262	38.25
High income group: ≥ R50 000	221	32.26

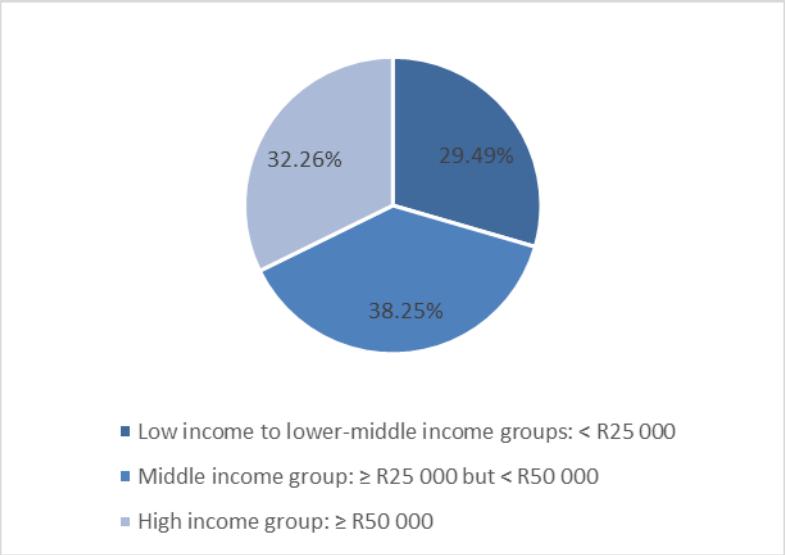

FIGURE 5.5: MONTHLY HOUSEHOLD INCOMES (BEFORE TAX DEDUCTIONS) OF SAMPLE (N = 685; MISSING: n = 5)

5.2.6 Geographic area of residence of sample

Respondents were asked to indicate the province in which they resided (Figure 5.6). Although all nine provinces were initially included in the questionnaire, they were grouped into four categories for statistical analysis (Table 5.5). The area of residence of the respondents were not used as a control measure, however, it was included in the questionnaire to ascertain the geographic distribution of SA's wine consumers. The four province categories were Gauteng, KwaZulu-Natal, Western Cape and other. KwaZulu-Natal is home to two of the largest harbours in SA and the Western Cape is home to SA's most popular wine regions. In addition, these two provinces and the Gauteng province have the largest populations (see Appendix H). As such, it was important to include these three provinces. Most of wine consumption in SA occur in Gauteng and the Western Cape (Weightman, 2018).

Three quarters of the respondents reside in Gauteng (n=344, 51.42%) and the Western Cape (n=169, 25.26%). Almost 10% of the respondents live in KwaZulu-Natal (n=61, 9.12%). The remainder of the sample comprised

respondents from the other six provinces: Eastern Cape, Free State, Limpopo, Mpumalanga, North West and the Northern Cape (n=95, 14.20%). Twenty-one respondents preferred not to disclose the province they reside in.

TABLE 5.5: AREA OF RESIDENCE OF THE SAMPLE (N = 669; MISSING: n = 21)

Categories in questionnaire	n	%	Categories used in data analysis	n	%
Eastern Cape	28	4.19	Gauteng	344	51.42
Free State	22	3.29	KwaZulu-Natal	61	9.12
Gauteng	344	51.42	Western Cape	169	25.26
KwaZulu-Natal	61	9.12	Other: Eastern Cape, Free State, Limpopo, Mpumalanga, North West, Northern Cape.	95	14.20
Limpopo	15	2.24			
Mpumalanga	10	1.49			
North West	13	1.94			
Northern Cape	7	1.05			
Western Cape	169	25.26			

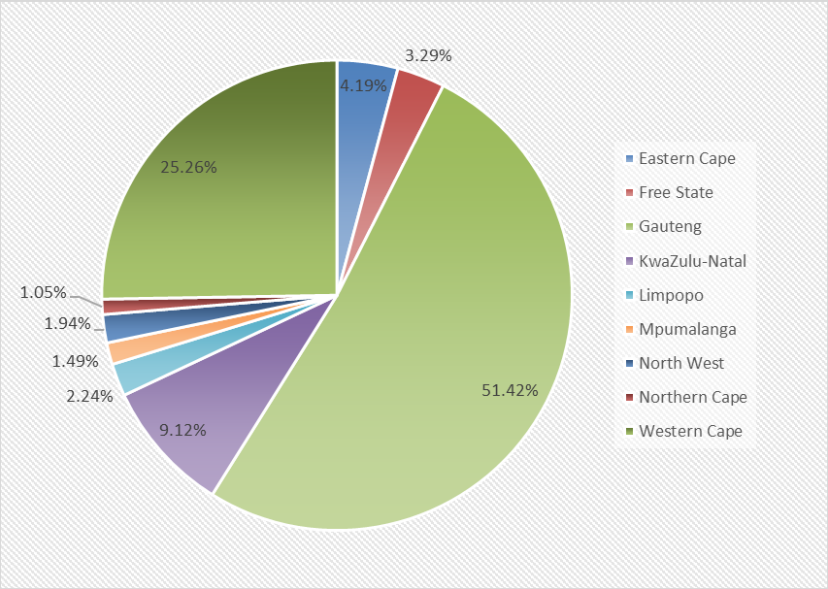

FIGURE 5.6: GEOGRAPHIC AREA OF RESIDENCE OF SAMPLE (N = 669; MISSING: n = 21)

5.3 CONSUMERS' WINE PURCHASING AND CONSUMPTION BEHAVIOUR

The following section presents the results pertaining to the respondents' interest in wine, beverage preferences, frequency of wine consumption and -purchases (to be taken home, or to be consumed socially).

5.3.1 Wine consumers' interest in wine

Respondents were asked to indicate their level of interest in wine on a five-point Likert-type scale ranging from "Very interested" to "No interest". As indicated in Table 5.6, more than 80% of the respondents are fairly or very interested in wine (n=564). Only 7.24% indicated low or no interest (n=50), which may link to the respondents who stated that they never drink or purchase wine (Sections 5.3.3 and 5.3.4). However, low interest is not equivalent to no consumption or purchasing of wine. It is important to note, that respondents who are interested in wine would probably have been more inclined to complete a questionnaire on the subject and as such, the generalisations cannot be made in terms of the population of SA. Nonetheless, the focus of the study lies with wine consumers and a sample that is for the most part interested in wine is expected to provide useful feedback.

Wine consumers' interest in wine can be connected to whether or not they have a wine qualification. Respondents were asked to indicate whether or not they have a wine qualification (Table 5.7). Most of the sample indicated that they do not have a wine qualification of any kind (n=392, 56.8%). Almost 10% of the sample had a wine qualification such as a certificate/diploma or degree in wine service (n=46, 6.6%) or a wine course diploma (n=8, 1.2%). Interestingly, more than a third of the sample admitted to self-taught knowledge of wine (n=244, 35.4%) and probably, these respondents will utilise various information sources to gain more knowledge on wine. In total, 43% of the sample either possessed a wine qualification or were self-taught about wine, which explain why so many respondents indicated that they are fairly, or highly interest in wine.

The respondents were for the most part, interested in wine and regular wine drinkers (see Section 5.3.3) and therefore "involved" wine consumers (d'Hauteville, 2003; Seghieri *et al.*, 2007). Wine consumers that have higher product involvement tend to possess more product knowledge (Aurifeille *et al.*, 2002). Furthermore, Hussain *et al.* (2007) found that regardless of consumers' wine knowledge, willingness to try new or various wines leads to more product knowledge. It is expected that wine consumers with higher involvement and interest in wine, will display such variety-seeking behaviour.

TABLE 5.6: WINE CONSUMERS' INTEREST IN WINE (N = 690)

Level of interest in wine	n	%	Cumulative Percentage (%)
Very interested	224	32.46	32.46
Fairly interested	340	49.28	81.74
Neutral	76	11.01	92.75
Low interest	31	4.49	97.25
No interest	19	2.75	100
Total	**690**	**100**	

TABLE 5.7: WINE QUALIFICATION STATUS OF THE SAMPLE (N = 690)

Categories of wine qualifications	n	%
I do not have a wine qualification	392	56.81
Self-taught about wine	244	35.36
Wine course certificate/diploma or degree in wine service (incl. wine course degree in wine service, wine degree in for example viniculture, viticulture, oenology)	54	7.83

5.3.2 Wine consumers' beverage preference at a social event

Wine consumption is also said to be a social or shared activity (Kelley *et al.*, 2015) and wine is often purchased specifically for social events (Balestrini and Gamble, 2006). Table 5.8 and Figure 5.7 show the results for the respondents' beverage preference between, beer, wine, spirits and non-alcoholic *drinks for consumption at a social event*. Consumers may choose any of these beverages for the associated benefits. For example, beer and wine are said to evoke various arousal emotions: Beer evokes "energetic", "excited" and "amused" emotions, whereas wine elicits emotions of calmness, comfort and love (Silva, Jager, van Bommel, van Zyl, Voss, Hogg, Pintado and De Graaf, 2016). Charters and Pettigrew (2008) suggest that wine consumers drink wine as it "offers deep psychological significance" that stretches beyond the physical properties of wine consumption.

Wine was mostly preferred by the majority of the respondents (n=456, 66.09%) also confirming their interest in participating in this study. Of the 690 respondents, 308 (44.64%) stated that wine is their most preferred beverage choice at a social event. Therefore, it is expected that these respondents would have provided useful answers and as a result, form a reliable sample.

Non-alcoholic drinks were indicated as the second most preferred beverage at a social event (n=358, 51.89%). This could be an indication of responsible alcohol consumption as the question related to a social event where people, in several cases, must travel afterwards. The preference levels for spirits were relatively evenly distributed for "least preferred" to "moderately preferred" (n=189, 27.39% and n=188, 27.25%, respectively). Interestingly, beer was the least preferred beverage for consumption at a social event (n=220, 31.9%). In an Australian study, researchers found that wine (26%) was preferred to beer (20%) and spirits (13%) and provided a possible reason for the findings by linking wine consumption to alcohol consumed in moderation (Habel, Rungie, Lockshin and Spawton, 2003). Furthermore, some consumers believe that wine, especially red wine, is healthier than beer or spirits (Chang *et al.*, 2016). In a French wine study, it was found that 70% of the respondents preferred other drinks to wine as they did not like the taste of wine (d'Hauteville, 2003).

Melo *et al.* (2010a), investigated wine consumers' lifetime drinking behaviour and found that there are three general lifetime phases of alcoholic beverage consumption. Wine started off as the second most preferred beverage in phase one and consumption thereof increased drastically in the second and third phases, whereas consumption of beer and spirits decreased. Linking with this, a study investigating alcohol socialisation, found that consumers are initially introduced to alcoholic drinks other than wine, and later socialised into wine (Velikova, Fountain, De Magistris, Seccia and Wilson, 2013a). As this sample was comprised of older wine consumers (mean age = 51.60), it might explain why wine is the most preferred beverage in this study.

TABLE 5.8: WINE CONSUMERS' BEVERAGE PREFERENCE AT A SOCIAL EVENT (N = 690)

Beverage	Wine		Beer		Spirits		Non-alcoholic drinks	
Preference level	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Most preferred	308	44.64	98	14.20	118	17.10	166	24.06
Moderately preferred	148	21.45	162	23.48	188	27.25	192	27.83
Fairly preferred	113	16.38	210	30.43	195	28.26	172	24.93
Least preferred	121	17.54	220	31.88	189	27.39	160	23.19

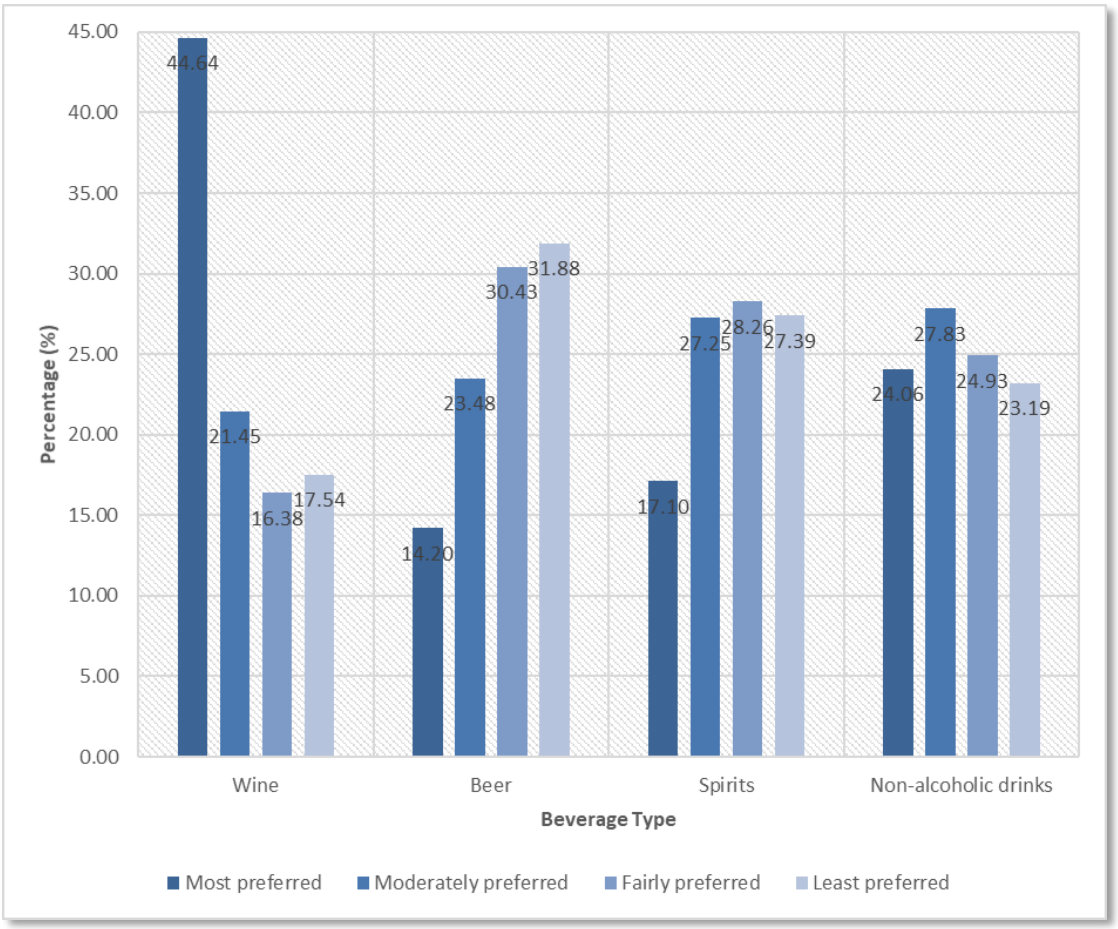

FIGURE 5.7: WINE CONSUMERS' BEVERAGE PREFERENCE AT A SOCIAL EVENT (N = 690)

5.3.3 Frequency of wine consumption

Four groups of wine consumers were distinguished from the data and are presented in Table 5.9:

- **Regular or core wine consumers** (drinkers) who drink wine more than twice per week (n= 382, 55.36%);
- **Fairly regular wine consumers** who drink wine two to four times per month (n=155, 22.46%);
- **Occasional or marginal wine consumers** that drink wine occasionally (n=125, 18.12%); and
- **Non-wine consumers** who never drink wine (n=28, 4.06%).

Therefore, nearly 80% of the sample consumed wine regularly or fairy regularly**;** the remainder consumed wine occasionally (n=125, 18.12%) and therefore the respondents could confidently express views on their wine choice and consumption. These findings correspond with findings from other studies (Agnoli *et al.*, 2011; Atkin and Johnson, 2010; Atkin and Thach, 2012; Bruwer and Huang, 2012; Seghieri *et al.*, 2007; Velikova *et al.*, 2013b). To the contrary, Johnson and Bruwer (2007) found that more than a third of their sample drank wine every day and almost nine out of ten wine consumers drank wine a few times per week and almost all drink wine at least once per month, making them core wine consumers. Similar figures were reported by Patrick Merrill in Heeger (2006), Bruwer, Li, Bastian and Alant (2005) and Atkin *et al.* (2007). In contrast, another study differentiates super core wine consumers; those that drink wine several times a week; and core wine consumers that drink wine at least once per week. Their findings indicated that majority of wine consumers are in fact marginal wine consumers (48%) and that super core wine consumers (29%) and core wine consumers (23%) make up the remainder (Kelley *et al.*, 2015). A study investigating Chinese wine consumers produced similar findings (Balestrini and Gamble, 2006).

Characteristics one can expect from these wine consumers are: regular or core wine consumers drink wine daily or almost every day and have high product knowledge and involvement. They are also more open to purchase wine online (Merrill in Heeger, 2006). Routine or fairly regular wine consumers have high wine knowledge and average product involvement. Occasional wine consumers/ drinkers have the lowest (except for non-wine consumers) product involvement and are said to be novice wine consumers or to have average wine knowledge (Viot and Passebois-Ducros, 2010). This corresponds with other studies that have found that wine consumers who consume more wine have greater subjective knowledge (i.e. what they think they know) (Barber *et al.*, 2008b; Vigar-Ellis *et al.*, 2015) and objective knowledge (actual wine knowledge) (Vigar-Ellis *et al.*, 2015). Hussain *et al.* (2007) also found that wine knowledge increases with an increase in wine consumption, while Atkin and Johnson (2010) found that information used by wine consumers depend on wine consumption frequency. Another study found that wine consumers who drink red wine several days a week, tend to buy wines priced in the mid-range rather than expensive wines (Cox, 2009). Evidence of former studies confirm that wine consumption is difficult to predict, as it is a complicated phenomenon (Cox, 2009).

The 4% of respondents that indicated they never drink wine indicated that they do in fact purchase wine.

TABLE 5.9: FREQUENCY OF WINE CONSUMPTION (N = 690)

	n	%	Cumulative Percentage (%)
Daily	157	22.75	22.75
Twice or more per week	225	32.61	55.36
Once per week	83	12.03	67.39
Maximum twice per month	72	10.43	77.83
Occasionally	125	18.12	95.94
Never	28	4.06	100
Total	**690**	**100**	

5.3.4 Frequency of wine purchases

Table 5.10 indicates that most of the respondents in this study purchased wine at most twice per month (39.42%), or occasionally (34.78%). Therefore, nearly three from four respondents purchased wine at most twice per month. Wine consumers with higher self-assessed (subjective) wine knowledge purchase more wine per month (Rasmussen and Lockshin, 1999) and therefore these respondents would be able to confidently express their views on wine selection and purchasing. Only about 15% of respondents in this study purchased wine once per week and the remainder, less than 10% (7.82%), purchased wine more frequently, confirming the findings of Kelley *et al.* (2015). Less than 1% of respondents purchase wine daily, corresponding with findings of Forbes (2012).

TABLE 5.10: FREQUENCY OF WINE PURCHASES (N = 690)

Frequency of wine purchases	n	%	Cumulative Percentage (%)
Daily	5	0.72	0.72
Twice or more per week	49	7.10	7.83
Once per week	104	15.07	22.90
Maximum twice per month	272	39.42	62.32
Occasionally	240	34.78	97.10
Never	20	2.90	100
Total	**690**	**100**	

5.3.5 Frequency of wine purchases for social consumption or to take home

The consumption situation plays an important role in wine consumer behaviour and wine choice (Aurifeille, Quester, Hall and Lockshin, 1999; Lockshin *et al.*, 1997). Respondents were asked to indicate how frequently they purchase wine at different locations/places for social consumption or to take home[1] (Table 5.11 and Figure 5.8).

5.3.5.1 Retail shops and retail wholesalers

One out of two respondents' most preferred place/ location to purchase wine was at a **retail shop** (n=355, 51.45%). Approximately 30% of the respondents occasionally purchased wine at **retail shops** (n=218, 31.59%) and **retail wholesalers** (n=213, 30.87%). One out of two respondents seldom or never purchased wine at **retail wholesalers** (n=346, 50.14%). Previous studies have found that wine purchases at retail shops form part of routine grocery shopping (Barber, 2009; Jennings and Wood, 1994; Ritchie *et al.*, 2010). Velikova *et al.* (2013b) found that almost 70% of their respondents purchased wine at supermarkets; Forbes (2012) found that 62% of wine purchases were made in the supermarket/ retail shop and Balestrini and Gamble (2006) found that 53% of wine purchases were made at supermarkets or wine retail stores. An Australian study found that almost 60% of wine purchases occur at large liquor chain and supermarkets (Bruwer and Huang, 2012). Ndanga *et al.* (2008) found that black urban South African consumers most preferred a local retail shop/ supermarket and liquor store to purchase wine. Wholesalers were only preferred by the consumers that buy wine in bulk less frequently.

5.3.5.2 Liquor stores

A third of the respondents indicated that they often or always purchased wine at **liquor stores** (n=233, 33.77%). A study based in the Dominican Republic found that 22.8% of their sample purchased wine at liquor stores, second to buying wine at supermarkets (Velikova *et al.*, 2013b). Forbes (2012) obtained a similar finding of wine purchases made at grocery stores (24%), again second to wine purchases made at supermarkets. Evidently, liquor stores, second to retail store, are an important off-premise location for wine purchases and investigating wine consumers' self-confidence at off-premise locations are imperative.

5.3.5.3 Wine speciality stores and wineries

Wine speciality stores and **wineries** pose a crucial limitation as in-land wine consumers do not have readily access to them to purchase wine, and wine speciality stores are also very scarce in-land, being more concentrated in, or nearby wine regions such as in the Western Cape. Therefore, it is not unusual that the

[1] It is assumed that consumers purchase wine per bottle at retail shops and wholesalers, liquor stores, wine speciality stores, wineries and via online/mail order. Consumers can purchase wine per bottle or per glass at restaurants, hotels and bars and may prefer purchasing wine per glass more so than per bottle.

majority of the respondents indicated that they occasionally, seldom or never purchase wine at wine speciality stores (n=615, 89.13%) and wineries (n=599, 86.81%). Interestingly, however, a small group of respondents indicated that they always purchase wine at wine speciality stores (n=14, 2.02%) and wineries (n=19, 2.75%). Similar results for wineries were obtained by a US study (11%) and an Australian study and (13.4%) (Barber, 2008; Bruwer and Huang, 2012). Bruwer and Huang (2012) and Forbes (2012) found that wine purchases were made between 9-14% of the time at wine speciality stores. Wine purchases at wine speciality stores were only preferred by wine connoisseurs in the study conducted by Ndanga *et al.* (2008).

5.3.5.4 Online and mail order wine purchases

Although wine speciality stores and wineries have limited accessibility for consumers residing in other areas besides wine regions, several of them provide **online** or **mail order** services. However, most of the respondents indicated that they seldom or never purchase this way (n=565, 81.9%). Possible reasons for this can be the negative perception of trustworthiness of online systems, possible unreliability of delivery companies and the risk of not receiving the correct order (Cho, Bonn and Kang, 2014; Parboteeah, Taylor and Barber, 2016). This is, however, an emerging market as more consumers seek the convenience of online shopping, wine specials such as One Day Only's Wine Wednesdays, and the ability to purchase the exact wine the consumer wants directly from the supplier or producer. Interestingly, 16 (2.31%) of the respondents indicated that they always purchase wine via online or mail orders. A US study and an Australian study found that 2.2% of wine consumers purchase wine via mail orders and 3.7% of wine consumers purchase wine online, respectively (Barber, 2008; Bruwer and Huang, 2012). Parboteeah *et al.* (2016) reported higher figures than the current study and previously mentioned studies. More than 30% of their sample occasionally purchase wine online. Characteristics of online wine buyers are well-educated males with an affluent household and are aged 35-44 (Bruwer and Wood, 2005). Similar findings were obtained by Cho *et al.* (2014) with the exception of gender. They found that online wine buyers had a more equal distribution between males and females and that 91.7% of their sample purchased wine one online to two times per month. It was also found that many of the respondents who visited winery websites did so as part of their information search and not necessarily to purchase wine (Bruwer and Wood, 2005). The perceived risks of buying wine online can be reduced by providing high quality wine websites and improving their website security (Cho *et al.*, 2014; Parboteeah *et al.*, 2016).

5.3.5.5 Restaurant wine purchases

Similar to findings of previous studies (Jaeger *et al.*, 2010; Olsen, 2008; Ritchie, 2011), the respondents of this study indicated that when in a **restaurant**, they often or always order wine (n=261, 37.83%) mostly to accompany their meal, which is particularly important for highly involved wine consumers (Jaeger *et al.*, 2010). Over a third of the respondents occasionally purchased wine at a restaurant (n=253, 36.67%).

Balestrini and Gamble (2006) found that 47% of wine purchases were made at restaurants and other places of entertainment. Just over 30% of their sample drank wine at restaurant dinners. A US study found only a quarter of wine purchases were made at restaurants, lower than the current study's findings (Barber, 2009). Bruwer and Huang (2012) found that restaurant wine purchases amount to only 13.8%. The respondents of the current study more frequently purchased wine at restaurants than those of previous research. Even though this study did not aim to explore possible reasons for this potential anomaly, wine sales by glass and a stimulating atmosphere in restaurants can lead to increased wine sales. Previous studies have indicated the importance of wine sales by glass to increase wine sales in restaurants and bars (Durham, Pardoe and Vega, 2004) and wine consumers may prefer to buy wine per glass depending on their transport/travel arrangements afterwards (Jaeger *et al.*, 2010). A study investigating the likelihood of consumers to purchase wine at a wine bar, found that atmosphere and environment influenced respondents' emotional states and their behaviour (Platania, Platania and Santisi, 2016). Thus, if restaurants, hotels and bars want to increase their wine sales, they have to create environmental stimuli that will persuade wine consumers to purchase more wine (Platania *et al.*, 2016).

5.3.5.6 Hotels and bars

A relatively small percentage of the respondents indicated that they often or always purchased wine at **hotels** (n=60, 8.70%) and **bars** (n=89, 12.90%), while the most specified that they seldom or never do so (hotels: n=486, 70.43%; bars: n=473, 68.55%). A study based in the Dominican Republic found <1% of their sample purchased wine at hotels (Velikova *et al.*, 2013b). This can be due to the high mark-up on wines or small (and often expensive) wine selection provided by hotels or hotel restaurants (Livat and Remaud, 2016). Wine consumers that purchased wine at hotels and restaurants were found to have higher incomes and higher levels of education (Velikova *et al.*, 2013b).

Apparently consumers also tend to rather purchase beers (including craft beers), ciders, hard liquor and shooters at bars as the wine selection and (perceived) quality of the wines may be questionable (Olsen, 2008). Wine consumers also opt to buy wine by the glass at bars and tend to only buy bottles if it is going to be shared by a group of people (Melo *et al.*, 2010b). Nonetheless, males are more prone to order beer if they are in a group (Olsen, 2008). Furthermore, hard liquor or shooters are preferred to wine at many bars and nightclubs (Olsen, 2008). One study found that consumers prefer to drink wine at restaurants and bars and felt that spirits are not appropriate for bars (Agnoli *et al.*, 2011). The consumers who ordered wine at bars and nightclubs did so as they considered wine to be a "sexy hip drink". Males also tend to think that females who drink wine in bars and nightclubs are more sophisticated. This feeling is not necessarily reciprocated (Olsen, 2008).

Even though generalisations to the larger wine consumer population cannot be made, this study did find that wine purchases at retail shops and supermarkets form the largest market segment and wine purchases at restaurants, bars and hotels are comparatively low. Marketers and producers should make the shopping experience in retail shops and supermarket as easy as possible for wine consumers. Similarly, restauranteurs and owners should improve/ adapt the consumption setting to make it more conducive for wine purchases and re-evaluate their wine lists to make it more attractive for consumers. More in-depth research regarding the reasons for low frequency of wine purchases at hotels and bars are needed. Even though, wine purchase frequency at nightclubs was not investigated in this study, it is still a good recommendation for future research, especially when investigating Millennials' wine purchasing behaviour.

TABLE 5.11: FREQUENCY OF WINE CONSUMERS' WINE PURCHASES AT DIFFERENT LOCATIONS (N = 690)

Different locations	Frequency					
	Often/ Always		Occasionally		Never/ Seldom	
	n	%	n	%	n	%
Retail shops	355	51.45	218	31.59	117	16.96
Retail wholesaler	131	18.99	213	30.87	346	50.14
Liquor store	233	33.77	268	38.84	189	27.39
Wine speciality store	75	10.87	109	15.8	506	73.33
Winery	91	13.19	144	20.87	455	65.94
Online/ Mail order	53	7.68	72	10.43	565	81.88
Restaurant	261	37.83	253	36.67	176	25.51
Hotel	60	8.7	144	20.87	486	70.43
Bar	89	12.9	128	18.55	473	68.55

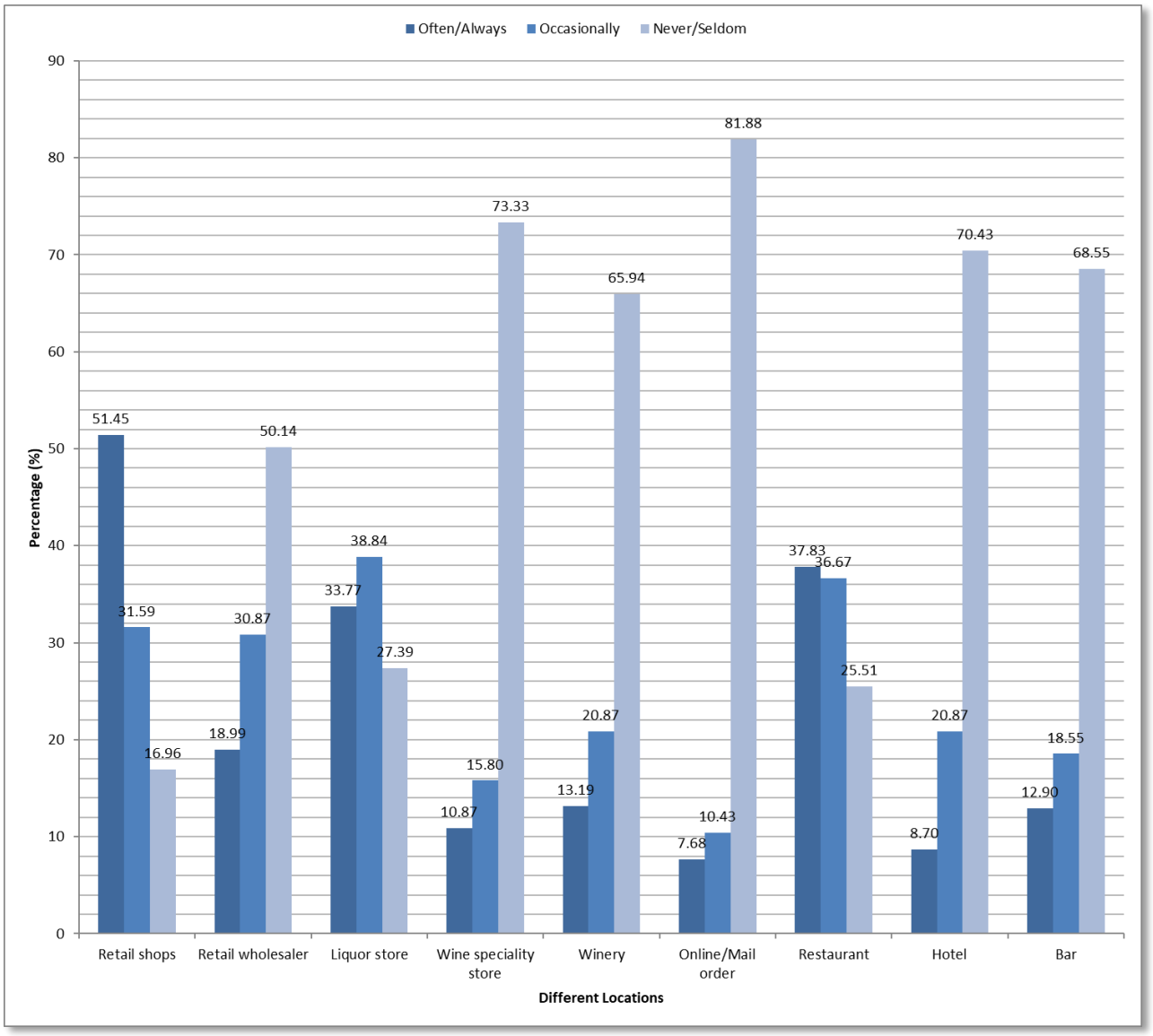

FIGURE 5.8: FREQUENCY OF WINE PURCHASES AT DIFFERENT LOCATIONS FOR CONSUMPTION SOCIALLY OR AT HOME (N = 690)

5.4 WINE CONSUMERS' WINE KNOWLEDGE (OBJECTIVE 1)

The respondents' objective wine knowledge ($K_{Obj.}$) and subjective wine knowledge ($K_{Subj.}$) were investigated by means of three questions with related items. Respondents were asked to compare their wine knowledge in terms wine characteristics, wine service, food and wine pairing, wine quality and wine selection, to that of their peers. Afterwards, they were provided with ten objective wine knowledge questions, testing these five concepts. The subjective knowledge questions were asked before the objective knowledge questions as to not compromise a respondent's responses should the objective test prove to be difficult to them. The results were compared with one another to ascertain the respondents' subjective wine knowledge to their objective wine knowledge.

The $K_{Subj.}$ questions were scored on a five-point Likert-type Agreement scale, i.e. maximum of five could be scored by the respondents (Appendix B, Question 9). Respondents could score a maximum of ten points on the $K_{Obj.}$ section (Appendix B, Question 10). The scores for the subjective wine knowledge test were converted to a score out of 10 for easier comparison between $K_{Subj.}$ and $K_{Obj.}$. Table 5.12 shows the interpretation of the mean values of the wine knowledge questions.

TABLE 5.12: OPERATIONALISATION OF MEAN SCORES FOR OBJECTIVE AND SUBJECTIVE WINE KNOWLEDGE

Description of Level of Wine Knowledge	Wine Knowledge Mean Values (M)
Very low	>0 – <2
Low	4 – <5
Average	5 – 6
Above average	>6 – 8
High	>8

5.4.1 Wine consumers' objective wine knowledge (Objective 1.1)

The respondents were presented with ten basic wine knowledge questions compiled for the South African context to examine their objective wine knowledge (refer to Question 10 on questionnaire – Appendix B). There were three possible responses: "True", "False" and "Don't know". Most of the respondents answered the $K_{Obj.}$ questions correctly and therefore received an average or high score. The mean value of the correct responses (maximum = 10) was 6.89 (Table 5.13). Previous wine studies had similar results (Barber, 2009; Bruwer and Buller, 2012). Two other studies also reported high objective knowledge. (Barber *et al.*, 2009b; Dodd *et al.*, 2005). Conversely, in a study conducted by Veale (2008), the researchers found that their sample had low or very low objective knowledge (4.71 out of maximum score of 14).

The mean value and standard deviation of an objective knowledge test used by Vigar-Ellis *et al.* (2015) were 3.31 and 2.08, respectively. The mean value was half that of the current study's mean value and the standard deviation is comparable. In their study, they found that the easiest question to answer by wine consumers was one relating to wine cultivars ("*Which of the following is a red wine*?" Correct answer: Merlot), similarly to the current study. Like this study, there were respondents in their study who scored 0 (minimum) and 10 (maximum).

The standard deviation of the correct responses to the $K_{Obj.}$ questions was 2.40. Therefore, there were respondents that scored below average (4.49) and very high/ good (9.29). The mode indicates that many of the respondents scored nine out of ten for the objective wine knowledge questions. The minimum and

maximum scores achieved by the respondents were zero and ten, respectively (Table 5.14). The same was found by Vigar-Ellis *et al.* (2015).

As presented Table 5.13 below, there were two questions which received the correct responses from many of the respondents (where *True and **False), namely "White wine should be served chilled"* (n=607, 87.97%) and "Shiraz is a white wine"** (n=589, 85.36%). The three lowest scoring statements were "Tannins are normally present in white wines"** (n=393, 56.96%), "The purpose of tasting wine at a restaurant is to verify that it is the correct wine"** (n=388, 56.23%) and "Expensive wines are exclusively closed with cork wine closures"** (n=347, 50.29%). The individual means for each question statement (refer to Table 5.13) and the high mean value of the sample (M = 6.89) (refer to Table 5.14) indicate that the respondents in this study's wine knowledge was **moderate**. The number of "Don't know" responses is noteworthy. The two question statements that the respondents admitted to being the most unsure about were: "When making red wine the skins are left on the grapes during fermentation"* (n= 152, 22.03%) and "Tannins are normally present in white wines"** (n=208, 30.14%), which both relate to wine characteristics.

TABLE 5.13: RESPONDENTS' OBJECTIVE WINE KNOWLEDGE (N = 690)

Knowledge score	Responses	Correct responses		Incorrect responses		"Don't know" responses	
	Question statements	n	%	n	%	n	%
Very good M = 80-<90%	White wine should be served chilled*	607	87.97	54	7.83	29	4.20
	Shiraz is a white wine**	589	85.36	65	9.42	36	5.22
Good M = 70-<80%	Chardonnay is a red wine**	548	79.42	97	14.06	45	6.52
	Red wine can be well-paired with grilled white fish**	510	73.91	119	17.25	61	8.84
Above average M = 60-<70%	Pinotage is a unique South African variety*	479	69.42	78	11.30	133	19.28
	When making red wine the skins are left on the grapes during fermentation*	476	68.99	62	8.99	152	22.03
	Table wines (excl. fortified and sparkling wines) have an alcohol content lower than 7%**	419	60.72	158	22.90	113	16.38
Average M = 50-<60%	Tannins are normally present in white wines**	393	56.96	89	12.90	208	30.14
	The purpose of tasting wine at a restaurant is to verify that it is the correct wine**	388	56.23	242	35.07	60	8.70
	Expensive wines are exclusively closed with cork wine closures**	347	50.29	250	36.23	93	13.48

$Mean_{Max}$ = 100% (M) or score out of 10; * True; ** False

TABLE 5.14: DESCRIPTIVE STATISTICS OF CORRECT RESPONSES TO OBJECTIVE WINE KNOWLEDGE QUESTIONS (N = 690)

Mean	6.89
Standard Error	0.09
Median	7
Mode	9
SD	2.40

The sample of this study comprised of moderately interested/ involved wine consumers. Consumers with more product involvement tend to have more product knowledge (Aurifeille *et al.*, 2002). Wine consumers who consume wine more frequently tend to also show exploratory purchasing behaviour, i.e. purchase new or different brands/ are willing to try new wines (Kelley *et al.*, 2015; Vigar-Ellis *et al.*, 2015). These consumers will also exhibit more product knowledge due to an increased usage experience. As a result, the fact that the overall mean for $K_{Obj.}$ was above average, comes as no surprise.

Cronbach's alpha for the objective wine knowledge scale is 0.664, which is lower than the generally acceptable value of 0.7 (Lance, Butts and Michels, 2006). A possible reason for the low value is that the objective knowledge scale used in the study, is a new scale adapted to the South African context and has not been validated in previous research.

Even though wine closure styles are not part of the objective of investigation for this study, it is interesting to note that this question scored the lowest correct responses. Previous studies have shown that for some consumers the closure style is an attribute they take into account when making the wine selection and the wine choice will differ depending on the consumption situation/occasion/purpose (Barber *et al.*, 2009b). Females prefer the traditional cork (Atkin *et al.*, 2005a; Atkin *et al.*, 2007), Metacork™ and synthetic corks whereas males prefer Stelvin® (Atkin *et al.*, 2005a). Atkin *et al.* (2007) found that both males and females preferred the traditional cork. Similarly, Millennials and Baby Boomers prefer that traditional cork the same (Barber *et al.*, 2009b). Millennials also preferred the screw caps more so than Baby Boomers, who views screw caps as cheap wines. However, for special occasions and gifts, Millennials would rather buy a wine with a traditional cork more so than Baby Boomers. This behaviour does not change even if both age groups have high subjective and objective wine knowledge (Barber *et al.*, 2009b). Atkin *et al.* (2005a) also investigated the importance of wine bottle closures for the consumers and they distinguished two factors with underlying items, namely sensual aspects (including "pop"-sound of opening a wine and sniffing the cork) and performance aspects (ability to open and reseal bottle). To US consumers the ritual of opening and assessing the wine and cork is important. They also enjoy the "pop"-sound of the cork upon opening of the

bottle. Wine consumers from New Zealand preferred ease of opening of the bottle (Atkin *et al.*, 2005a). These findings are supported by a similar study a year later (Atkin *et al.*, 2006). The ability to reseal the wine bottle was important to wine consumers from New Zealand, the US and Australia (Atkin *et al.*, 2005a). Furthermore, Barber *et al.* (2006), found that wine consumers perception of the quality of the wine is greater with the following bottle closings: cork seals, wax seals and foil coverings over the cork. Furthermore, wine consumers regard wines with screw caps and synthetic corks slightly negatively (Atkin *et al.*, 2007) or as cheap wines.

5.4.2 Wine consumers' subjective wine knowledge (Objective 1.2)

The respondents were asked to indicate how knowledgeable they regard themselves to be about wine characteristics compared to others they know (Appendix B, Question 8). Three groups could be discerned from the data obtained and are shown in Figure 5.9:

- The first group indicated that they are novices or inexperienced or had limited knowledge about wine characteristics (n=228, 33.04%).
- The second group and also the majority of the respondents of this study, indicated that their knowledge about wine characteristics is moderate (n=328, 47.54%), correlating with their high interest in wine (see Section 5.3.1).
- The last group are the respondents with presumed substantial knowledge or regard themselves as experts concerning wine characteristics (n=134, 19.42%). 43%of the sample has a wine qualification or is self-taught about wine and this can link to the high percentage of respondents that indicated they are fairly or highly interest in wine.
- Only nine respondents indicated that they regard themselves as experts of wine characteristics compared to others they know. A pitfall of this question is that it is difficult to distinguish if the respondents who indicated that they are experts in wine when compared to others they know, may have a group of peers who are not well-educated/socialised in wine, therefore these wine consumers may not be experts in wine per se.

The respondents were further asked to indicate how knowledgeable they regard themselves to be about certain wine concepts (wine characteristics, wine service, food and wine pairing, wine quality and wine selection), compared to others they know (see Table 5.15 and Table 5.16; Appendix B, Question 9). The mean values (>6) for all five statements indicate that wine consumers' subjective wine knowledge is above average.

60% of respondents regarded themselves as knowledgeable on how to serve wine (n=415, 60.14%) and which wines to choose (n=421, 61.01%). More than half of the respondents perceived themselves to be

knowledgeable about wine quality (n=371, 53.77%); while 45% indicated that they were knowledgeable about wine characteristics (n=322, 46.67%) and the pairing of wine with food (n=308, 44.64%). Between 20-25% of respondents indicated that they are undecided/ neutral with regards to the pairing of food and wine, thus being undecided score (n=177, 25.65%); and 5-10% of the respondents strongly agreed to being knowledgeable.

With each of the five statements, the majority of the respondents indicated that they are knowledgeable about the aspects presented to them (Table 5.16). This correlates with respondents that indicated they have moderate knowledge and those with substantial knowledge (Figure 5.9). Similar investigations pertaining to wine could not be found in literature.

Similar to the findings obtained in this study, were the reports by Barber (2009), Johnson and Bruwer (2007) and Cox (2009), i.e. that their samples' subjective knowledge of wine was slightly above average. Conversely, two other studies reported that the majority of their samples' subjective knowledge was either low. (Barber and Taylor, 2013; Bruwer and Buller, 2012; Hussain *et al.*, 2007) or high (Barber *et al.*, 2008b; Dodd *et al.*, 2005). The context of investigation and the composition of the sample is therefore highly relevant in the reporting of findings.

Consumers who drink more wine apparently believe that they have more wine knowledge (subjective knowledge) (Barber et al., 2008b; Vigar-Ellis et al., 2015). Consumers with self-reported average or above average wine knowledge also tend to purchase more wine (Rasmussen and Lockshin, 1999) or are more involved with the product (Cox, 2009). In addition, some researchers have found that there is a positive correlation between subjective and objective knowledge, i.e. wine consumers with higher subjective knowledge will have a corresponding level of objective knowledge (Forbes et al., 2008).

Cronbach's Alpha for the subjective wine knowledge scale is 0.933, which is deemed acceptable (Lance *et al.*, 2006) indicating that the subjective knowledge scale used in the study had good internal consistency.

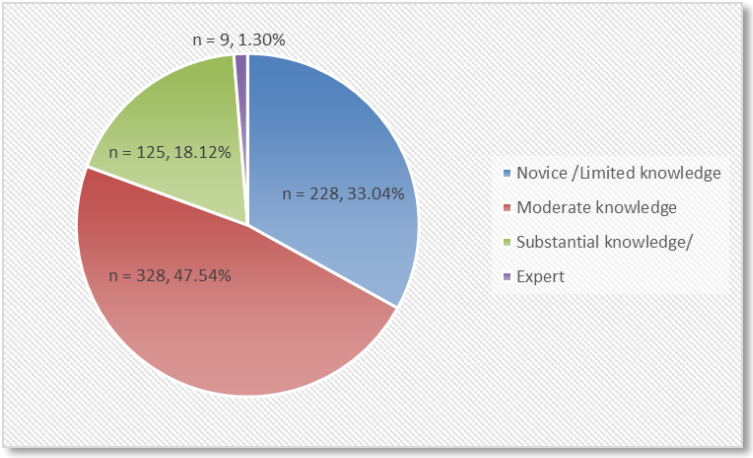

FIGURE 5.9: WINE CONSUMERS' SUBJECTIVE WINE KNOWLEDGE (N = 690)

TABLE 5.15: DESCRIPTIVE STATISTICS OF SUBJECTIVE WINE KNOWLEDGE QUESTIONS (N = 690)

	Wine characteristics	How to serve wine	Pairing of wine with food	Wine quality	Which wines to choose	Overall
Mean ($M_{Max.}$ = 5)	6.21	6.80	6.21	6.63	6.89	6.55
SE	0.09	0.08	0.08	0.08	0.08	0.04
Median	6	8	6	8	8	8
Mode	8	8	8	8	8	8
SD	2.29	2.17	2.18	2.18	2.13	2.21

TABLE 5.16: WINE CONSUMERS' SUBJECTIVE WINE KNOWLEDGE IN TERMS OF SPECIFIC TOPICS (N = 690)

Subjective wine knowledge	Strongly agree/ Agree		Undecided		Disagree/ Strongly disagree	
	n	%	n	%	n	%
Wine characteristics	322	46.67	146	21.16	222	32.17
How to serve wine	415	60.14	124	17.97	151	21.88
Pairing of wine with food	308	44.64	177	25.65	205	29.71
Wine quality	371	53.77	164	23.77	155	22.46
Which wines to choose	421	61.01	135	19.57	134	19.42

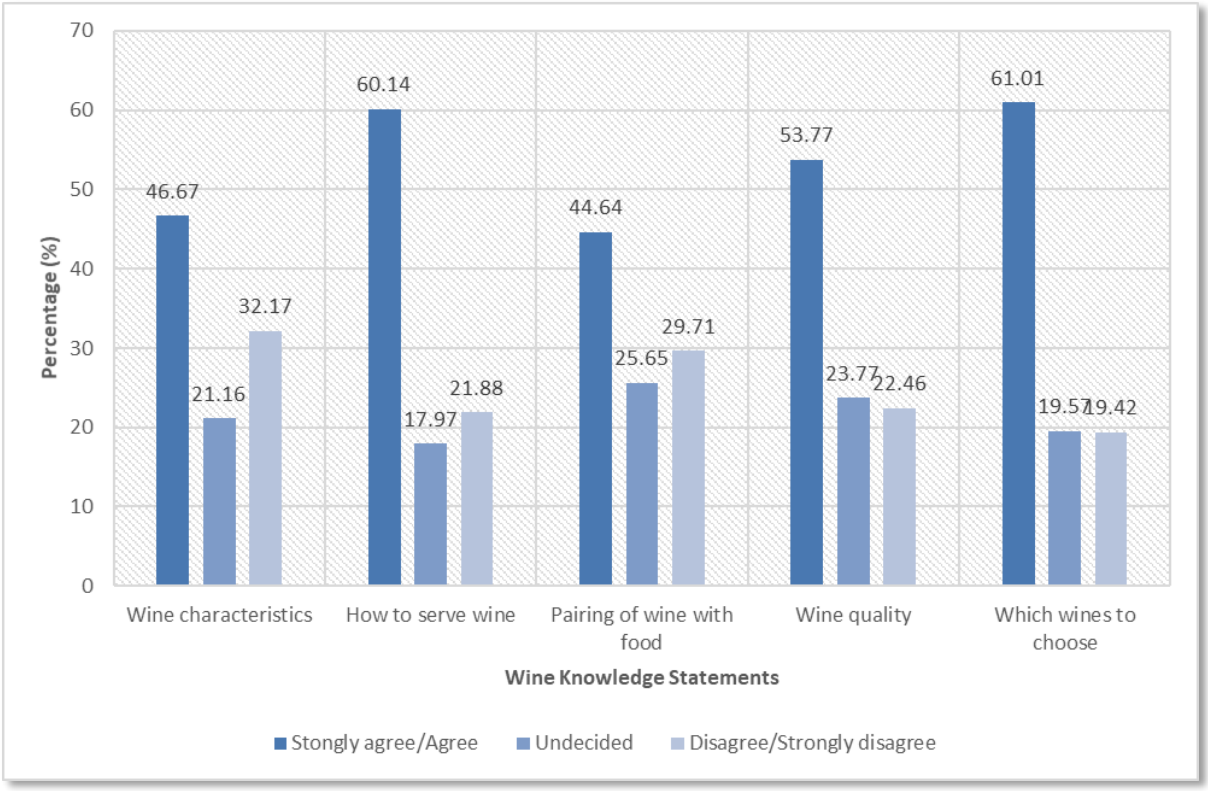

FIGURE 5.10: WINE CONSUMERS' SUBJECTIVE WINE KNOWLEDGE IN TERMS OF SPECIFIC WINE CHARACTERISTICS (N = 690)

5.4.3 Wine consumers' objective versus subjective wine knowledge

The respondents' responses to the $K_{Subj.}$ and $K_{Obj.}$ questions of the questionnaire were compared and are presented in Table 5.17.

- Concerning the five subjective wine knowledge statements ($K_{Subj.}$) the majority of the respondents indicated that they regard themselves to be knowledgeable about **wine characteristics, wine service, food and wine paring, wine quality and wine selection** (Table 5.16).
- Concerning the objective wine knowledge statements ($K_{Obj.}$) regarding **wine characteristics,** dealing with **intrinsic wine characteristics such as the alcohol content and the cultivars, production processes and food and wine pairings,** respondents fared well. The statements that the respondents struggled with, were "Tannins are normally present in white wines"**, "The purpose of tasting wine at a restaurant is to verify that it is the correct wine"** and "Expensive wines are exclusively closed with cork wine closures"**. The first statement has to do with wine characteristics and the wine production process that respondents may be less acquainted with. The last two statements refer to wine quality and may have more to do with the respondents' perception of wine quality than the actual wine quality (Barber *et al.*, 2006).

A comparison of respondents' objective and subjective wine knowledge revealed that wine consumers' $K_{Obj.}$ when it came to **wine characteristics, how to serve wine, which wine to choose and food and wine pairings**, was better than their $K_{Subj.}$

Important therefore, is that respondents knew more than what they thought they knew. Overall, the wine consumers of this study were more modest when indicating what they think they know (subjective knowledge: $M_{Subj.}$ = 6.55) compared to their objective wine knowledge ($M_{Obj.}$ = 6.89) although both scores merely suggested that their knowledge is average knowledge.

TABLE 5.17: WINE CONSUMERS' SUBJECTIVE WINE KNOWLEDGE COMPARED TO THEIR OBJECTIVE WINE KNOWLEDGE (N = 690)

Subjective wine knowledge	Strongly agree/ Agree (%)	Objective wine knowledge	Correct responses (%)	Average (%)
Wine characteristics	46.67	Shiraz is a white wine**	85.36	70.15
		Chardonnay is a red wine**	79.42	
		Pinotage is a unique South African variety*	69.42	
		When making red wine the skins are left on the grapes during fermentation*	68.99	
		Table wines (excl. fortified and sparkling wines) have an alcohol content lower than 7%**	60.72	
		Tannins are normally present in white wines**	56.96	
How to serve wine	60.14	White wine should be served chilled*	87.97	72.10
		The purpose of tasting wine at a restaurant is to verify that it is the correct wine**	56.23	
Pairing of wine with food	44.64	Red wine can be well-paired with grilled white fish**	73.91	73.91
Wine quality	53.77	The purpose of tasting wine at a restaurant is to verify that it is the correct wine**	56.23	53.26
		Expensive wines are exclusively closed with cork wine closures**	50.29	
Which wines to choose	61.01	Red wine can be well-paired with grilled white fish**	73.91	71.67
		Pinotage is a unique South African variety*	69.42	

$Mean_{Maximum}$ = 100% (M); * True; ** False

Similar results were found by Dodd *et al.* (2005) and Bruwer and Buller (2012) and another study that reported a positive correlation between subjective and objective wine knowledge (Forbes *et al.*, 2008). In addition, Robson *et al.* (2014) found that higher subjective wine knowledge is a significant predictor of higher wine objective knowledge. As the majority of the sample in this study are core wine consumers, these findings are further supported by Vigar-Ellis *et al.* (2015) who found that wine knowledge is positively related with frequency of wine consumption. Similar to this study, two studies found that wine consumers' objective knowledge exceeds their subjective knowledge (Barber, 2009; Barber *et al.*, 2009b) and one study found that their respondents' subjective wine knowledge exceeded their objective knowledge (Veale, 2008). This again accentuates the relevance of the context of the studies when reporting or using the findings for subsequent research. Nevertheless, as discussed previously, there were a few statements that the wine consumers did not respond well to when compared to other statements of the same category, and as a result there is room for improvement with respect to what the respondents knew about wine.

5.4.4 Demographic differences in wine consumers' wine knowledge

Several former studies have found demographic differences in the wine knowledge of wine consumers (Atkin and Thach, 2012; Barber, 2008; Forbes, 2012; Robson *et al.*, 2014).

In this investigation, two-tailed t-tests, one-way analysis of variance (ANOVA) and post hoc Scheffe tests were performed to investigate any possible significant differences among demographic groups within specific demographic categories for their subjective and objective wine knowledge. These results are conveyed and discussed in the following section. A summary of the results as per the sub-objectives of the study can be found in Section 6.2.1.

5.4.4.1 Gender differences (Sub-objective 1.1.1 and 1.2.1)

As seen in Table 5.18, male and female wine consumers' $K_{Subj.}$ differ significantly (p=0.001). Similarly, male and female wine consumers' $K_{Obj.}$ differ significantly (p=0.011). For both types of wine knowledge male wine consumers' $K_{Subj.}$ and $K_{Obj.}$ ($M_{Subj.}$ = 6.67; $M_{Obj.}$ = 7.31) exceeded that of female wine consumers ($M_{Subj.}$ = 6.26; $M_{Obj.}$ = 6.68) significantly, thereby confirming the findings of studies performed by Barber (2009) and Forbes (2012). Other studies found that men are inclined to self-assess ($K_{Subj.}$) their wine knowledge significantly higher than females do (Bruwer and Johnson, 2010; Forbes, 2012; Mitchell and Hall, 2001) and that males' objective wine knowledge is significantly higher than the $K_{Obj.}$ of females (Barber, 2008). In a more recent study, however, Robson *et al.* (2014) found that females' $K_{Obj.}$ is significantly higher than their male counterparts.

This study found both male and female wine consumers' wine knowledge to be above average, with the only exception that female wine consumers' $K_{Subj.}$ was only slightly above average. The standard deviations of the means are noteworthy as female wine consumers' $K_{Subj.}$ ranged from low to high ($M_{Subj.}$ = 4.17 to 8.35) and the same applied for their $K_{Obj.}$ ($M_{Obj.}$ = 4.35 to 9.01). Similarly, male wine consumers' $K_{Subj.}$ ranged from average to high ($M_{Subj.}$ = 4.91 to 8.43) and the same was true for their $K_{Obj.}$ ($M_{Obj.}$ = 5.26 to 9.36). Therefore, whether male or female, for $K_{Subj.}$ as well as for $K_{Obj.}$, there were wine consumers who knew much about wine and those whose wine knowledge was limited. Forbes (2012) found that male wine drinkers tend to think they are very knowledgeable about wine ($K_{Subj.}$), whilst the US study of (Vigar-Ellis *et al.*, 2015), could not detect significant gender differences in wine consumers' $K_{Subj.}$.

Studies about frequency of wine purchases are conflicting and the results should be interpreted given the context of the study and the time when the study was done. For example, US researchers reported that US female wine consumers purchased more than double (9.2 bottles) the amount of wine than their male counterparts (four bottles) (Barber, 2009). More recently, the US study performed by Kelley *et al.* (2015) revealed that men purchase wine more often than females do, although more females than males drink wine. (Forbes, 2012), conversely, in a study conducted across four countries (USA, UK, New-Zealand and Australia) found that males and females consume and purchase wine with the same frequency.

Earlier studies have found that consumers' product knowledge generally increases with an increase in product experiences (Alba and Hutchinson, 1987; Park *et al.*, 1994) and that consumers' objective and subjective wine knowledge increase with product experiences (thus wine consumption) (Barber *et al.*, 2008b; Hussain *et al.*, 2007; Vigar-Ellis *et al.*, 2015). The current study's sample indicated that they drink and purchase wine frequently, therefore the above average $K_{Obj.}$ and $K_{Subj.}$ of males and females came as no surprise.

The Cohen's effect size values for $K_{Obj.}$ and $K_{Subj.}$ were -0.29 and -0.25, respectively. Even though males and females' objective and subjective knowledge are significantly different, both of these values are small and therefore the practical significance of the results is low.

TABLE 5.18: GENDER DIFFERENCES IN RESPONDENTS' WINE KNOWLEDGE

Wine Knowledge	Gender	n	Mean†	SD	SEM	ANOVA*	Cohen's *d* Standard Effect Size**
Objective knowledge	Female	285	6.68	2.33	0.14	0.000	-0.29
	Male	390	7.31	2.05	0.10		
Subjective knowledge	Female	294	6.26	2.09	0.12	0.001	-0.25
	Male	396	6.67	1.76	0.09		

Key: †$Mean_{Maximum}$ = 10. *The mean difference is significant at $p \leq 0.05$ level. ***d*=0.2 is considered a small effect size, *d*=0.5 is considered a medium effect size and *d*=0.8 is considered a large effect size.

5.4.4.2 Age differences (Sub-objective 1.1.2 and 1.2.2)

The results for wine consumers wine knowledge per age groups are provided in Table 5.19 and Table 5.20.

Wine consumers' $K_{Obj.}$, based on the means, ranged from 6.54 to 7.35, indicating that they have an above average $K_{Obj.}$. Baby Boomers' $K_{Obj.}$ ($M_{Obj.}$ = 7.35) is significantly higher (p=0.00) compared to Millennials' ($M_{Obj.}$ = 6.45), probably due to increased experience with wine (Barber *et al.*, 2008b; Barber *et al.*, 2009b). Baby Boomers' $K_{Obj.}$ ($M_{Obj.}$ = 7.35) is significantly higher (p=0.05) compared to GenXers' $K_{Obj.}$ ($M_{Obj.}$ = 6.79), also probably due to being more experienced with wine (Barber *et al.*, 2008b). The K_{Obj} of the over 60 year olds – the Baby Boomers and the Greatest Generation – does not differ significantly (p=1.00).

Several studies reported that age – being older – is a significant predictor of higher $K_{Obj.}$ (Forbes *et al.*, 2008; Robson *et al.*, 2014; Vigar-Ellis *et al.*, 2015). Millennials apparently spend less on wine than their older counterparts, probably due to their lower disposable income (Atkin and Thach, 2012) and therefore, it is not surprising that older wine consumers have more product experience and subsequently more actual wine knowledge ($K_{Obj.}$). Conversely, Resnick (2008:62) found that Millennials and GenXers have greater disposable incomes than their older counterparts and would spend a greater portion of their income on wine. Similar to this study, Barber (2008) also found that Millennials' $K_{Obj.}$ was the lowest.

With respect to age, wine consumers' $K_{Subj.}$ does not differ significantly ($p > 0.05$). Based on the means, wine consumers' $K_{Subj.}$ ranged from 6.31 to 6.75 across the age groups. They therefore have an average to above average K_{Subj}. Similarly, to the current study, Vigar-Ellis *et al.* (2015) did not find age as a significant predictor of K_{Subj}. Even though there were no significant differences for age with respect to consumers' subjective wine knowledge, Barber *et al.* (2008b) found that GenXers' $K_{Subj.}$ exceeds that of Millennials (thus the older they are, the more they think they know). Similar findings were reported by (Atkin and Thach, 2012; Barber, 2008). Not surprisingly, Baby Boomers were found to self-assess their wine knowledge ($K_{Subj.}$) significantly higher than Millennials (Barber, 2008; Barber *et al.*, 2009b). Viot and Passebois-Ducros (2010) clustered wine consumers according to their age, involvement, subjective knowledge and wine consumption and concluded that younger wine consumers self-reported an average $K_{Subj.}$ whilst they regularly consume wine and actually have high product involvement. Thus, even though the subjective knowledge of younger wine consumers is lower, their high involvement with wine will enhance their knowledge as they gather more product experiences over time.

Based on age, this study found respondents' $K_{Subj.}$ to be low to above average, and their $K_{Obj.}$ to be low to high. Therefore, it is apparent that the respondents knew ($K_{Obj.}$) more than they thought they knew ($K_{Subj.}$). This can

be a result of them experiencing the wine selection process as intimidating rather than relying on what they know. Considering that all the $K_{Obj.}$ scores ranged $6.45 \leq M \leq 7.35$, the $K_{Obj.}$ of all age groups is above average. Notwithstanding, none of the age categories were highly knowledgeable about wine and all age groups therefore had much more to learn about wine quality and wine characteristics.

TABLE 5.19: AGE DIFFERENCES IN CONSUMERS' KNOWLEDGE OF WINE

Age Groups		**Objective Knowledge ($M_{Maximum}$ = 10)**	**Subjective Knowledge ($M_{Maximum}$ = 10)**
Millennials $K_{Obj.}$ n = 105 $K_{Subj.}$ n = 110	**Mean** **SD**	6.45 2.34	6.31 2.13
Generation X/ GenXers $K_{Obj.}$ n = 199 $K_{Subj.}$ n = 202	**Mean** **SD**	6.79 2.43	6.41 1.90
Baby Boomers $K_{Obj.}$ n = 292 $K_{Subj.}$ n = 296	**Mean** **SD**	7.35 1.96	6.70 1.90
Greatest Generation $K_{Obj.}$ n = 71 $K_{Subj.}$ n = 72	**Mean** **SD**	7.32 1.96	6.75 1.78
Total $K_{Obj.}$ N = 667 $K_{Subj.}$ N = 680	**Mean** **SD**	**7.04** **2.19**	**6.55** **1.91**
ANOVA Sig.		0.001	0.139

Values in red indicate significant differences at $p \leq 0.05$.

TABLE 5.20: POST HOC SCHEFFE TEST RESULTS FOR THE AGE DIFFERENCES WITH REGARDS TO THEIR WINE KNOWLEDGE

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	Millennials	Generation X	-0.35	0.26	0.63	-1.08	0.39
		Baby Boomers	-.902	0.25	0.00	-1.59	-0.21
		Greatest Generation	-0.88	0.33	0.08	-1.81	0.06
	Generation X	Millennials	0.35	0.26	0.63	-0.39	1.08
		Baby Boomers	-0.56	0.20	0.05	-1.11	0.00
		Greatest Generation	-0.53	0.30	0.37	-1.37	0.31
	Baby Boomers	Millennials	.902	0.25	0.00	0.21	1.59
		Generation X	0.56	0.20	0.05	0.00	1.11
		Greatest Generation	0.03	0.29	1.00	-0.78	0.83
	Greatest Generation	Millennials	0.88	0.33	0.08	-0.06	1.81
		Generation X	0.53	0.30	0.37	-0.31	1.37
		Baby Boomers	-0.03	0.29	1.00	-0.83	0.78

Values in red indicate the mean difference is significant at $p \leq 0.05$ level. Values in blue indicate the mean difference is significant at $p \leq 0.10$ level.

5.4.4.3 Household income differences (Sub-objective 1.1.3 and 1.2.3)

As seen in Table 5.21, the mean values of wine consumers' $K_{Subj.}$ ranged from 6.13 to 6.97, indicating slightly above average to above average knowledge across all the income groups. The mean values for wine consumers' $K_{Obj.}$ ranged from 6.01 to 7.97, being average to relatively high and therefore better than their subjective knowledge. ANOVA indicated significant differences among the income groups (Table 5.21), requiring post hoc Scheffe tests to signify the significant differences (Table 5.22) between specific income groups. As indicated in the operationalisation table, wine consumers who earn <R25 000 per month fall in the low to lower-middle income groups; wine consumers earning ≥R25 000 <R50 000 per month fall in the middle-income group; and those earning more than R50 000 per month represent the high-income group.

For $K_{Obj.}$, significant differences (all at $p<0.000$) were confirmed between low to lower-middle income wine consumers ($M_{Obj.} = 6.01$), and the middle-income wine consumers ($M_{Obj.} = 7.03$), as well as the high-income wine consumers ($M_{Obj.} = 7.97$). Likewise, the $K_{Subj.}$, of wine consumers in the low to lower-middle income group is significantly lower ($M_{Subj.} = 6.13$) compared to high-income wine consumers ($M_{Subj.} = 6.97$; $p<0.000$). The $K_{Subj.}$ of the latter is also significantly higher compare to middle-income wine consumers ($M_{Subj.} = 6.52$; $p=0.04$). A significant difference ($p=0.09$) at a 10% confidence level was evident between low to lower-middle income wine consumers ($M_{Subj.} = 6.13$) and middle-income wine consumers ($M_{Subj.} = 6.52$).

Low to lower-middle income wine consumers' overall wine knowledge (combined $K_{Subj.}$ and $K_{Obj.}$) is slightly above average and their $K_{Subj.}$ is also marginally (but not significantly) higher than their $K_{Obj.}$, contrary to the

middle- and high-income groups whose wine knowledge is above average. Interestingly, high-income wine consumers have an average (but significantly lower) $K_{Subj.}$ ($M_{Subj.}$ = 6.97) compared to their $K_{Obj.}$, which is high ($M_{Obj.}$ = 7.97).

Little research on household income and wine knowledge has been conducted. Previous studies mostly focussed on how income level influenced the cues used during the purchase decision (Barber *et al.*, 2006); how much money is spent by wine consumers on wine (Cox, 2009; Thach and Olsen, 2015); and wine and status consumption (Kim and Jang, 2014) to name a few.

Wine consumers with higher incomes have more disposable income to spend on wine and wine experiences, and can choose from a wider range of wines (Barber *et al.*, 2006). As such, it is not surprising that wine knowledge ($K_{Subj.}$ and $K_{Obj.}$) increase as household income increases with higher incomes.

The results of a French study showed that involvement was linked to how "well-off" a household is, i.e. the more well-off the household, the greater the product involvement of the consumers (d'Hauteville, 2003). Other studies confirmed that wine consumers with higher incomes are more likely to purchase more expensive wines consumers with lower incomes (Cox, 2009; Thach and Olsen, 2015) and that those with higher personal incomes tend to be more sensation seeking in nature, thus willing to take more risks to obtain new sensations (Galloway *et al.*, 2008).

Monthly household income therefore seems a significant predictor of wine consumers' wine knowledge in SA and should be explored in further research. Cox (2009) proposed that habit or lifestyle may provide more clarity than income regarding the prices that wine consumers are willing to pay for wine. Even though that was not the focus of this current study, incorporating habits and lifestyles along with income in future studies may provide useful empirical data.

TABLE 5.21: HOUSEHOLD INCOME DIFFERENCES IN CONSUMERS' KNOWLEDGE OF WINE

Monthly Household Income Categories		**Objective Knowledge ($M_{Maximum}$ = 10)**	**Subjective Knowledge ($M_{Maximum}$ = 10)**
Less than R 25 000 $K_{Obj.}$ n = 193 $K_{Subj.}$ n = 202	**Mean** **SD**	6.01 2.28	6.13 2.20
≥ R 25 000 but < R 50 000 $K_{Obj.}$ n = 259 $K_{Subj.}$ n = 262	**Mean** **SD**	7.03 2.08	6.52 1.95
≥ R 50 000 $K_{Obj.}$ n = 218 $K_{Subj.}$ n = 221	**Mean** **SD**	7.97 1.82	6.97 1.49
Total $K_{Obj.}$ N = 670 $K_{Subj.}$ N = 685	**Mean** **SD**	**7.04** **2.20**	**6.55** **1.92**
ANOVA Sig.		0.00	0.00

Values in red indicate significant differences at $p \leq 0.05$.

TABLE 5.22: POST HOC SCHEFFE TEST RESULTS OF WINE CONSUMERS' WINE KNOWLEDGE WITH REGARDS TO THEIR MONTHLY HOUSEHOLD INCOME

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	< R 25 000	≥ R 25 000 < R 50 000	-1.02	0.20	0.00	-1.50	-0.54
		> R 50 000	-1.96	0.20	0.00	-2.46	-1.46
	≥ R 25 000 - < R 50 000	<R 25 000	1.02	0.20	0.00	0.54	1.50
		> R 50 000	-0.94	0.19	0.00	-1.41	-0.48
	≥ R 50 000	< R 25 000	1.96	0.20	0.00	1.46	2.46
		≥ R 25 000< R 50 000	0.94	0.19	0.00	0.48	1.41
Subjective Knowledge	< R 25 000	≥ R 25 000 < R 50 000	-0.19	0.09	0.09	-0.41	0.02
		> R 50 000	-0.42	0.09	0.00	-0.65	-0.19
	≥ R 25 000 - < R 50 000	< R 25 000	0.19	0.09	0.09	-0.02	0.41
		> R 50 000	-0.22	0.09	0.04	-0.44	-0.01
	≥ R 50 000	< R 25 000	0.42	0.09	0.00	0.19	0.65
		≥ R 25 000 < R 50 000	0.22	0.09	0.04	0.01	0.44

Values in red indicate the mean difference is significant at $p \leq 0.05$ level. Values in blue indicate the mean difference is significant at $p \leq 0.10$ level.

5.4.4.4 Population group differences (Sub-objective 1.1.4 and 1.2.4)

Table 5.23 shows that the mean values of $K_{Obj.}$ of wine consumers, ranged from 4.62 to 7.48.

Regarding population differences in terms of $K_{Obj.}$, the knowledge of white, coloured and Indian/ other population groups was above average., whereas the $K_{Obj.}$ of black wine consumers was low.

The following significant differences in $K_{Obj.}$ were observed among the population groups):

- White respondents ($M_{Obj.}$ = 7.48) are significantly more knowledgeable than coloured wine consumers ($M_{Obj.}$ = 6.56; p=0.05), Indian/ other population groups ($M_{Obj.}$ = 6.26; p=0.02), as well as black wine consumers ($M_{Obj.}$ = 4.62; p<0.000).

- Coloured respondents are significantly more knowledgeable than black wine consumers (p<0.000).

- Respondents of other population groups are significantly more knowledgeable than black wine consumers (p=0.004).

- Differences in the $K_{Obj.}$ of coloured respondents and respondents of the Indian/ other population groups were not statistically significant (p=0.95).

The $K_{Subj.}$ of wine consumers across population groups ranged from 5.81 to 6.63, which is average to slightly above average. Even though the initial ANOVA test indicated possible significant difference(s) among the population groups' $K_{Subj.}$, follow-up post hoc Scheffe tests could not detect significant differences (p>0.05)

(Table 5.23 and Table 5.24). Therefore, black and white respondents' $K_{Subj.}$ do not differ significantly (p=1.00) as is the case with the coloured respondents and Indian/other respondents (p=0.99).

White respondents had an above average knowledge of wine (combined subjective and objective wine knowledge). The $K_{Obj.}$ of coloured and Indian/ other respondents was found to be above average, while their perceived wine knowledge ($K_{Subj.}$) only seemed average ($M_{Subj.}$ = 5.95; $M_{Subj.}$ = 5.81, respectively). The $K_{Obj.}$ of black wine consumers seems low despite their perceived wine knowledge being above average ($M_{Subj.}$ = 6.59).

As discussed in the literature review (Section 2.6.2.4) little research regarding South African wine consumers from different population groups have been conducted. However, consumption frequency has been found to have an important role in forming wine knowledge (Vigar-Ellis *et al.*, 2015). A study by Hussain *et al.* (2007) found that white consumers drink more wine than non-white consumers (African-American, Asian and Hispanic). Previously disadvantaged groups' interaction or socialisation with wine before the end of Apartheid era in SA was primarily based on working in the vineyards and helping to produce and serve the wine. This was also only for people living close by or in the wine region (Bongela, 2017). Furthermore, previously disadvantaged groups had limited exposure to wine in their childhood (Weightman, 2018). Thus, it can explain why the objective wine knowledge of white respondents was significantly higher than their counterparts from other population groups.

Subjective wine knowledge also related to how an individual perceives his/ her wine knowledge compared to people they know. As this is a wine study (and was stated as such in the cover letter), it is expected that consumers who are wine drinkers or interested in wine would have answered the questionnaire. Therefore, their perceived knowledge of wine may be higher than others they know.

These findings are interesting as it shows that the respondents from different population groups' objective wine knowledge differs significantly while the same is not true for their subjective wine knowledge. Also, the subjective wine knowledge of all population groups is average to above average, which may influence how they select a wine. Therefore, market segments from previously disadvantaged groups still have to be informed, educated and socialised in wine, leaving these (emerging) market segments untapped. Marketers also need to better research and understand these market segments as previously stated by Bruwer (2014a) and Ndanga *et al.* (2008).

TABLE 5.23: POPULATION GROUP DIFFERENCES IN CONSUMERS' KNOWLEDGE OF WINE

Population Groups		Objective Knowledge ($M_{Maximum}$ = 10)	Subjective Knowledge ($M_{Maximum}$ = 10)
Black	**Mean**	4.62	6.59
$K_{Obj.}$ n = 78	**SD**	2.13	2.21
$K_{Subj.}$ n = 82			
Coloured	**Mean**	6.56	5.95
$K_{Obj.}$ n = 39	**SD**	2.15	2.32
$K_{Subj.}$ n = 42			
Indian / Other	**Mean**	6.26	5.81
$K_{Obj.}$ n = 27	**SD**	2.28	2.29
$K_{Subj.}$ n = 30			
White	**Mean**	7.48	6.63
$K_{Obj.}$ n = 531	**SD**	1.94	1.81
$K_{Subj.}$ n = 536			
Total	**Mean**	**7.05**	**6.55**
$K_{Obj.}$ N = 675	**SD**	**2.19**	**1.92**
$K_{Subj.}$ N = 690			
ANOVA Sig.		0.00	0.02

Values in red indicate significant differences at p≤0.05.

TABLE 5.24: POST HOC SCHEFFE TEST RESULTS FOR POPULATION GROUP DIFFERENCES IN WINE KNOWLEDGE

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	**Black**	Coloured	-1.949	0.39	0.00	-3.04	-0.86
		Indian / Other	-1.644	0.44	0.00	-2.89	-0.40
		White	-2.863	0.24	0.00	-3.54	-2.19
	Coloured	Black	1.949	0.39	0.00	0.86	3.04
		Indian / Other	0.30	0.50	0.95	-1.09	1.70
		White	-0.91	0.33	0.05	-1.84	0.01
	Indian / Other	Black	1.644	0.44	0.00	0.40	2.89
		Coloured	-0.30	0.50	0.95	-1.70	1.09
		White	-1.219	0.39	0.02	-2.32	-0.12
	White	Black	2.863	0.24	0.00	2.19	3.54
		Coloured	0.91	0.33	0.05	-0.01	1.84
		Indian / Other	1.219	0.39	0.02	0.12	2.32

Values in red indicate the mean difference is significant at p≤0.05 level.

5.4.4.5 Level of education differences

Results pertaining to wine consumers' level of education and their wine knowledge are presented in Table 5.25 and Table 5.26. Post hoc Sheffe tests were conducted as ANOVA testing indicated significant differences for both subjective and objective knowledge.

The $K_{Obj.}$ of wine consumers with an education level up to Grade 12 ($M_{Obj.}$ = 6.11) is slightly above average and significantly lower (p<0.000) compared to those with a degree, whose $K_{Obj.}$ is above average ($Mo_{bj.}$ =

7.16). Wine consumers with a postgraduate qualification have a significantly higher $K_{Obj.}$ ($M_{Obj.}$ = 7.76; p<0.000) than wine consumers who have completed/ passed Grade 12 ($M_{Obj.}$ = 6.11). The $K_{Obj.}$ of wine consumers with an education level lower than Grade 12 ($M_{Obj.}$ = 6.00) and those who have completed Grade 12 ($M_{Obj.}$ = 6.11) do however not differ significantly (p=1.00). Significant differences were evident between wine consumers with post-graduate qualifications and wine consumers who possess a degree' $K_{Obj.}$ (p=0.06), and between wine consumers with a post-graduate qualification and those with an education level lower than Grade 12 (p=0.06), at a 10 % confidence level.

Results hence suggest that having a higher level of education is a predictor of having higher $K_{Obj.}$ concerning wine as was indicated in former studies (Forbes *et al.*, 2008; Robson *et al.*, 2014). Similarly, Forbes *et al.* (2008) found that wine consumers with a degree or postgraduate qualification had significantly higher $K_{Obj.}$ than consumers with a high school qualification or trade/ technical qualification. They also, as was found in this study, could not find a difference in the objective wine knowledge of wine consumers who possessed a postgraduate qualification and a Bachelor's degree. Cox (2009) found that wine consumers with a postgraduate qualification have higher involvement with wine than those who only have a high school qualification (equivalent to Grade 12), which probably explains the differences in their wine knowledge.

The $K_{Subj.}$ of wine consumers with an education level up to Grade 12 ($M_{Subj.}$ = 6.09) is average and is significantly lower (p<0.05) compared to those with a degree, whose $K_{Subj.}$ is above average ($M_{Subj.}$ = 6.69). The $K_{Subj.}$ of wine consumers with a degree ($M_{Subj.}$ = 6.69) and those with a post-graduate qualification ($M_{Subj.}$ = 6.65) do not differ significantly (p=1.00), and their perceived wine knowledge is above average, yet it is not high. Similarly, the $K_{Subj.}$ of wine consumers whose level of education is lower than Grade 12 ($M_{Subj.}$ = 6.06) and those who have completed Grade 12 ($M_{Subj.}$ = 6.09) do not differ significantly and is average.

Contrary to the findings of this, two former studies in different contexts did not find an that education level influences consumers' $K_{Subj.}$ (Cox, 2009; Vigar-Ellis *et al.*, 2015).

In terms of an overall knowledge of wine (combined $K_{Subj.}$ and $K_{Obj.}$) the wine knowledge of wine consumers with an education level lower or equal to grade 12, is average, while it is above average for wine consumers who possess a degree and/or postgraduate qualification, and high for wine consumers with postgraduate degrees, with confirmation that their objective wine knowledge ($M_{Obj.}$ = 7.76) exceeds their subjective wine knowledge ($M_{Subj.}$ = 6.65).

When looking at the results in the South African context, it is important to note that according to data gathered from the National Census in 2016, of Statistics South Africa (see Appendix I) it is evident that most of SA's inhabitants above the age of 21, have an education level **lower than grade 12** (57.06%). That is, by the age of 21, almost 60% of the country's population have not yet matriculated. Furthermore, the number

of people with higher education levels decreases as the level of education increases. Thus, the group of wine consumers with above average and high $K_{Obj.}$ are quite small in numbers. Wine consumers who have matriculated and those with an education lower than Grade 12 have average $K_{Subj.}$ and $K_{Obj.}$. Consumers with a higher level of education generally have a greater disposable income (Goyder *et al.*, 2002; STATS SA, 2011; Turčínková and Stávková, 2012), increasing their access to wine and they would probably be more knowledgeable about wine due to more product exposure/ usage experience (Hussain *et al.*, 2007) than lower educated consumers with lower incomes. Marketers hence could increase their efforts to educate and inform the larger part of the population who are less acquainted with and informed about wine to make informed decisions in the future.

TABLE 5.25: LEVEL OF EDUCATION DIFFERENCES IN CONSUMERS' KNOWLEDGE OF WINE

Education		**Objective Knowledge ($M_{Maximum}$ = 10)**	**Subjective Knowledge ($M_{Maximum}$ = 10)**
Lower than grade 12 $K_{Obj.}$ n = 12 $K_{Subj.}$ n = 13	**Mean** **SD**	6.00 1.65	6.06 2.14
Grade 12 $K_{Obj.}$ n = 131 $K_{Subj.}$ n = 135	**Mean** **SD**	6.11 2.22	6.09 2.06
Degree $K_{Obj.}$ n = 409 $K_{Subj.}$ n = 418	**Mean** **SD**	7.16 2.13	6.69 1.85
Postgraduate qualification $K_{Obj.}$ n =119 $K_{Subj.}$ n = 120	**Mean** **SD**	7.76 2.09	6.65 1.92
Total $K_{Obj.}$ N = 671 $K_{Subj.}$ N = 686	**Mean** **SD**	**7.04** **2.20**	**6.55** **1.92**
ANOVA Sig.		0.00	0.01

Values in red indicate significant differences at p≤0.05.

TABLE 5.26: POST HOC SCHEFFE TEST RESULTS OF WINE CONSUMERS' WINE KNOWLEDGE PER LEVEL OF EDUCATION

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	**Lower than grade 12**	Grade 12	-0.11	0.64	1.00	-1.91	1.70
		Degree	-1.16	0.63	0.33	-2.92	0.59
		Postgraduate qualification	-1.76	0.65	0.06	-3.58	0.05
	Grade 12	Lower than grade 12	0.11	0.64	1.00	-1.70	1.91
		Degree	-1.06	0.21	0.00	-1.66	-0.46
		Postgraduate qualification	-1.66	0.27	0.00	-2.42	-0.90
	Degree	Lower than grade 12	1.16	0.63	0.33	-0.59	2.92
		Grade 12	1.06	0.21	0.00	0.46	1.66
		Postgraduate qualification	-0.60	0.22	0.06	-1.22	0.02
	Postgraduate qualification	Lower than grade 12	1.76	0.65	0.06	-0.05	3.58
		Grade 12	1.66	0.27	0.00	0.90	2.42
		Degree	0.60	0.22	0.06	-0.02	1.22
Subjective Knowledge	**Lower than grade 12**	Grade 12	-0.02	0.28	1.00	-0.79	0.76
		Degree	-0.31	0.27	0.72	-1.07	0.44
		Postgraduate qualification	-0.29	0.28	0.78	-1.07	0.49
	Grade 12	Lower than grade 12	0.02	0.28	1.00	-0.76	0.79
		Degree	-0.30	0.09	0.02	-0.56	-0.03
		Postgraduate qualification	-0.28	0.12	0.15	-0.61	0.06
	Degree	Lower than grade 12	0.31	0.27	0.72	-0.44	1.07
		Grade 12	0.30	0.09	0.02	0.03	0.56
		Postgraduate qualification	0.02	0.10	1.00	-0.26	0.30
	Postgraduate qualification	Lower than grade 12	0.29	0.28	0.78	-0.49	1.07
		Grade 12	0.28	0.12	0.15	-0.06	0.61
		Degree	-0.02	0.10	1.00	-0.30	0.26

Values in red indicate the mean difference is significant at $p \leq 0.05$ level. Values in blue indicate the mean difference is significant at $p \leq 0.10$ level.

5.4.4.6 Geographic location differences

Results presented in Table 5.27 and Table 5.28 indicate that respondents from the Western Cape know significantly more ($p=0.03$; $p<0.000$, respectively) about wine than wine consumers of Gauteng and the other provinces. There are also significant differences ($p=0.07$; $p=0.10$, respectively) between Gauteng wine consumers' $K_{Obj.}$ ($M_{Obj.} = 7.01$) and those from the other provinces ($M_{Obj.} = 6.34$); and wine consumers from KwaZulu-Natal (KZN) ($M_{Obj.} = 6.79$) and the Western Cape ($M_{Obj.} = 7.63$) at a 10% confidence interval. The $K_{Obj.}$ ($M_{Obj.} = 6.79$) of wine consumers of KZN is also slightly higher compared to wine consumers in the other provinces ($M_{Obj.} = 6.34$).

ANOVA could not detect significant differences between groups' $K_{Subj.}$. Results show that the $K_{Subj.}$ of wine consumers from KZN and the other provinces is above average ($M_{Subj.}$ = 6.59; $M_{Subj.}$ = 6.67, respectively), while wine consumers from the Western Cape also have an above average $K_{Subj.}$ ($M_{Subj.}$ = 6.39) and is almost equal to the $K_{Subj.}$ of Gauteng wine consumers ($M_{Subj.}$ = 6.37). Interestingly, the $K_{Subj.}$ of wine consumers from KZN and the other provinces is higher than those from Gauteng and the Western Cape whose K_{Obj} is higher. Notwithstanding, the overall wine knowledge (combined $K_{Subj.}$ and $K_{Obj.}$) of wine consumers on all four provinces is above average.

According to data collected from the 2016 National Census conducted by Statistics South Africa (see Appendix H), the majority of people above the age of 21 resides in the Western Cape, KZN and Gauteng. Most of SA's wine consumption occur in Gauteng and the Western Cape (South African Audience Research Foundation, 2014 in Weightman, 2018). Gauteng has large urbanised cities that have greater access to a larger variety of wines in stores and in restaurants. Even though large parts of KZN are rural, it is also home to two of SA's biggest shipping ports, Durban Harbour and Richard's Bay Harbour, and urbanised cities like Durban and Umhlanga. These cities (including Cape Town in the Western Cape) also tend to have higher concentrations of populations with larger disposable incomes than consumers in rural areas where people are generally poorer (STATS SA, 2015; STATS SA, 2017b). Therefore, it is expected that wine expenditure and wine knowledge would differ across various geographic areas of the country.

Interestingly, although not significant, wine consumers from KZN and the other provinces have more $K_{Subj.}$ than those from Gauteng and the Western Cape, whose $K_{Obj.}$ is higher. It was expected that wine consumers from the Western Cape would have more wine knowledge (combined) and/ or be more involved with wine due to greater accessibility to wineries. In their study, Johnson and Bruwer (2007) found that the self-reported wine knowledge of wine consumers who came from Northern California near the Napa Valley, was higher. It was hence expected that the subjective knowledge of wine consumers from Gauteng would be higher as they have greater access to a variety of wines in retail stores. South African Market Insights (2018) reported that in 2018, consumers from KZN (R78.49) paid more per 750 ml bottle of red wine than the other provinces. However, overall since 2010-2018, consumers from the Western Cape have paid on average the most per 750 ml bottle of red wine (R74.36 in 2018). This does not suggest that wines are more expensive in certain provinces, rather that in some provinces the consumers are prepared to pay more for wine. More involved consumers tend to buy more expensive wines/ spend more on wine as less involved wine consumers are more price sensitive (Barber *et al.*, 2007a; Lockshin *et al.*, 2001; Quester and Smart, 1998).

The results of this study thus indicate that the area of residence is a good predictor of wine consumers' $K_{Obj.}$ but not their $K_{Subj.}$. Further research is required to explain this phenomenon.

TABLE 5.27: CONSUMERS' WINE KNOWLEDGE PER GEOGRAPHIC LOCATION

Provinces		Objective Knowledge ($M_{Maximum}$ = 10)	Subjective Knowledge ($M_{Maximum}$ = 10)
Gauteng	**Mean**	7.01	6.37
$K_{Obj.}$ n = 336	**SD**	2.21	2.03
$K_{Subj.}$ n = 344			
KwaZulu-Natal	**Mean**	6.79	6.59
$K_{Obj.}$ n = 57	**SD**	2.30	1.87
$K_{Subj.}$ n = 61			
Western Cape	**Mean**	7.63	6.39
$K_{Obj.}$ n = 166	**SD**	1.89	2.09
$K_{Subj.}$ n = 169			
Other	**Mean**	6.34	6.67
$K_{Obj.}$ n = 95	**SD**	2.33	1.88
$K_{Subj.}$ n = 95			
Total	**Mean**	**7.05**	**6.56**
$K_{Obj.}$ N = 654	**SD**	**2.19**	**1.92**
$K_{Subj.}$ N = 669			
ANOVA Sig.		0.00	0.55

*Values in red indicate significant differences at p≤0.05.

TABLE 5.28: POST HOC SCHEFFE TEST RESULTS OF WINE CONSUMERS PER GEOGRAPHIC LOCATION

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	Other	Gauteng	-0.68	0.25	0.07	-1.38	0.03
		KZN	-0.45	0.36	0.67	-1.47	0.56
		Western Cape	-1.29	0.28	0.00	-2.07	-0.51
	Gauteng	Other	0.68	0.25	0.07	-0.03	1.38
		KZN	0.22	0.31	0.92	-0.64	1.09
		Western Cape	-0.62	0.20	0.03	-1.19	-0.04
	KZN	Other	0.45	0.36	0.67	-0.56	1.47
		Gauteng	-0.22	0.31	0.92	-1.09	0.64
		Western Cape	-0.84	0.33	0.10	-1.77	0.09
	Western Cape	Other	1.29	0.28	0.00	0.51	2.07
		Gauteng	0.62	0.20	0.03	0.04	1.19
		KZN	0.84	0.33	0.10	-0.09	1.77

Values in red indicate the mean difference is significant at p≤0.05 level. Values in blue indicate the mean difference is significant at p≤0.10 level.

5.4.4.7 The relevance of wine qualification in terms of wine knowledge

Results presented in Table 5.29 indicate that the $K_{Subj.}$ of wine consumers who do not have a wine qualification, is average ($M_{Subj.}$ = 5.80) while their $K_{Obj.}$ is above average ($M_{Obj.}$ = 6.48). The $K_{Subj.}$ and $K_{Obj.}$ of wine consumers who are self-taught about wine, or have a formal wine qualification, is significantly higher (p<0.000) than that of wine consumers without a wine qualification. The $K_{Subj.}$ and $K_{Obj.}$ of wine consumers with a formal wine qualification is significantly higher (p=0.007; p=0.009, respectively) than those individuals that are self-taught about wine (see Table 5.30).

Not surprisingly, the $K_{Subj.}$ ($M_{Subj.}$ = 8.20) of respondents holding a formal wine qualification is high, and their $K_{Obj.}$ ($M_{Obj.}$ = 8.56) is very high. For those who are self-taught in wine, their wine knowledge ($M_{Subj.}$ = 7.38 and $M_{Obj.}$ = 7.59) is above average. This is expected based on their theoretical product knowledge and product/ usage experience due to their interest in or increased involvement with wine. Usually, these consumers like to read up on wine or pursue new wine experiences or enrol for wine courses, i.e. wine knowledge and involvement/ interest are positively related (Charters and Ali-Knight, 2000). When investigating wine tourists, Charters and Ali-Knight (2000) found that almost 20% of their sample had completed a wine course of some sort and half of the sample had read wine books or magazines. Their respondents perceived the benefits of learning more about wine in the form of improved enjoyment and understanding of wine, and it will "inform" and simplify their future wine purchases.

Therefore, having a wine qualification or being self-taught in wine seem to be good predictors of wine consumers' knowledge of wine.

TABLE 5.29: CONSUMERS' KNOWLEDGE OF WINE PER THEIR WINE QUALIFICATION LEVELS

Wine Qualifications		**Objective Knowledge ($M_{Maximum}$ = 10)**	**Subjective Knowledge ($M_{Maximum}$ = 10)**
I do not have a wine qualification $K_{Obj.}$ n = 378 $K_{Subj.}$ n = 392	**Mean** **SD**	6.48 2.28	5.80 1.97
Self-taught about wine $K_{Obj.}$ n = 243 $K_{Subj.}$ n = 244	**Mean** **SD**	7.59 1.90	7.38 1.28
Formal wine qualification $K_{Obj.}$ n = 54 $K_{Subj.}$ n = 54	**Mean** **SD**	8.56 1.27	8.20 1.35
Total $K_{Obj.}$ n = 675 $K_{Subj.}$ n = 690	**Mean** **SD**	**7.05** **2.19**	**6.55** **1.92**
ANOVA Sig.		0.00	0.00

*Values in red indicate significant differences at p≤0.05.

TABLE 5.30: POST HOC SCHEFFE TEST RESULTS OF WINE CONSUMERS' DIFFERENT WINE QUALIFICATIONS

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Objective Knowledge	I do not have a wine qualification	Self-taught about wine	-1.11	0.17	0.00	-1.53	-0.69
		Formal qualification	-2.08	0.30	0.00	-2.82	-1.33
	Self-taught about wine	I do not have a wine qualification	1.11	0.17	0.00	0.69	1.53
		Formal qualification	-0.96	0.31	0.01	-1.73	-0.19
	Formal qualification	I do not have a wine qualification	2.08	0.30	0.00	1.33	2.82
		Self-taught about wine	0.96	0.31	0.01	0.19	1.73
Subjective Knowledge	I do not have a wine qualification	Self-taught about wine	-0.79	0.07	0.00	-0.96	-0.62
		Formal qualification	-1.20	0.12	0.00	-1.50	-0.90
	Self-taught about wine	I do not have a wine qualification	0.79	0.07	0.00	0.62	0.96
		Formal qualification	-0.41	0.13	0.01	-0.72	-0.09
	Formal qualification	I do not have a wine qualification	1.20	0.12	0.00	0.90	1.50
		Self-taught about wine	0.41	0.13	0.01	0.09	0.72

Values in red indicate the mean difference is significant at $p \leq 0.05$ level.

5.4.5 Concluding remarks (Objective 1)

In conclusion, results show that the respondents who consume wine frequently have more product (wine) knowledge than their counterparts who consume wine less frequently (Aurifeille *et al.*, 2002). In addition, those who consume wine more frequently also believe they know more about wine (subjective knowledge) (Barber *et al.*, 2008b; Vigar-Ellis *et al.*, 2015) and they also purchase more wine (Rasmussen and Lockshin, 1999). The subjective knowledge of wine consumers who are more interested/ involved in wine is also greater (Cox, 2009). Generally, this study found that consumers' actual wine knowledge (objective wine knowledge) exceeds what they think they know (their subjective wine knowledge). Conversely, wine consumers with more subjective wine knowledge were black consumers, low-middle income consumers, consumers with an education lower than Grade 12 and consumers from the Other provinces' category.

The demographic groups whose wine knowledge were the highest, thus who knew the most about wine, were: males, Baby Boomers (the age group 60 years and more), high-income consumers, those with a higher level of education, white consumers, consumers residing in the Western Cape or Gauteng and those with a formal wine qualification. Thus, in accordance with the sub-objectives of this study, gender, age, income and population group seem to predict wine consumers' wine knowledge.

5.5 CONSUMERS' SELF-CONFIDENCE WHEN SELECTING WINE (OBJECTIVE 2)

Respondents' consumer self-confidence (CSC) to select wine at different locations (sales contexts), i.e. on-premise and off-premise locations was investigated through two questions with 24 related items each using an *Agreement* scale aiming to compare the results of the different sales contexts. Respondents were firstly asked to indicate how important various information sources are, when selecting wine in these sales contexts (Table 5.31).

5.5.1 Selecting wine in different sales contexts

Consumers purchase wine at off-premise locations such as retail shops, retail wholesalers, liquor stores, wine speciality stores and wineries. Previous research found that consumers make use of information sources and previous knowledge (Bearden *et al.*, 2001) to reduce risk as well as decision conflict (Barber and Almanza, 2007; Lockshin and Hall, 2003) and to increase their self-confidence (Loibl *et al.*, 2009) when selecting and purchasing wine. Consumers use information sources such as front and back bottle labels, information on shelves, marketing and promotional media, shelf-talkers, shop assistants, friends, family, journalists, wine writers, magazine articles, wine guides, their own preferences and values, etc. (Barber *et al.*, 2007b; Chaney, 2000; Dodd *et al.*, 2005; Hall *et al.*, 2000; Mueller *et al.*, 2010a; Unwin, 1999) to varying degrees.

The results of this study show (Table 5.31) that at *off-premise* locations, own/ personal experience is highly important to four out of five respondents when purchasing wine (n=555, 80.43%). Approximately two out of three respondents regard recommendations from friends or family members as either important or very important (n=460, 66.67%). Printed information (n=219, 31.74%) and recommendations from a clerk or salesperson (n=192, 27.83%) seem to be less important information sources to consumers when purchasing wine. The least important information sources are advertisements and promotional material (n=346, 50.15%), internet searches (n=374, 54.20%) and TV or radio infomercials (n=441, 63.91%) when selecting wine at off-premise locations. Shopping in a retail environment, allows the consumer to assess wines by looking at the bottle and their labels. Literature indicates that point-of-sale (POS) materials and wine bottle labels are the two most important information sources used by wine consumers (Chaney, 2000), possibly due to the great variety of wine on the shelves in a retail store, making it difficult for consumers to investigate all those options beforehand. This suggests that the wine choice is left until consumers arrive in the store (Chaney, 2000). To the contrary, Dodd *et al.* (2005) found that published material on wine is important for consumers who possess more objective knowledge and who wish to buy wine from the retail industry for home consumption. It is not surprising that wine consumers with higher objective wine knowledge are inclined to purchase wine at speciality stores (Forbes *et al.*, 2008).

TABLE 5.31: IMPORTANCE OF INFORMATION SOURCES USED BY WINE CONSUMERS IN DIFFERENT SALES CONTEXTS (N = 690)

DIFFERENT SALES CONTEXTS	INFORMATION SOURCES		VERY IMPORTANT/ IMPORTANT	NEUTRAL	LITTLE/ NO IMPORTANCE
OFF-PREMISE LOCATIONS	Own experience	n	555	72	63
		%	80.43	10.43	9.13
	Clerk/ salesperson	n	192	267	231
		%	27.83	38.7	33.48
	Friends/ family	n	460	134	96
		%	66.67	19.42	13.91
	Printed information	n	219	229	242
		%	31.74	33.19	35.07
	Internet	n	127	189	374
		%	18.41	27.39	54.20
	TV/radio	n	62	187	441
		%	8.99	27.1	63.91
	Advertisements/ promotional materials	n	138	206	346
		%	20.00	29.86	50.15
ON-PREMISE LOCATIONS	Own experience	n	587	53	50
		%	85.07	7.681	7.25
	Clerk/ salesperson	n	277	227	186
		%	40.14	32.9	26.96
	Friends/ family	n	442	140	108
		%	64.06	20.29	15.65
	Printed information	n	151	228	311
		%	21.88	33.04	45.07
	Internet	n	92	182	416
		%	13.33	26.38	60.29
	TV/radio	n	57	182	451
		%	8.26	26.38	65.36
	Advertisements/ promotional materials	n	127	178	385
		%	18.41	25.8	55.80

Velikova *et al.* (2013b) found that recommendations from friends and family, and information at supermarkets are the most important information sources, also reporting that their sample valued point-of-sale materials/ retail displays and tasting samples. As was found in this study, the recommendations from salespersons, radio and TV-infomercials seem to be less important information sources. Barber (2008) found that wine consumers preferred to rely on their own (personal) experiences first when making wine purchase decisions, followed by recommendations from friends and family, with point-of-sale material being the least important information source used. The varying outcomes of different studies emphasise that research findings on wine consumption and -selection should be related to particular contexts and that results of former studies should be used cautiously in marketing initiatives unless the context of the study can be associated with.

On-premise locations where wine can be purchased, include restaurants and hotels (where the wine will accompany a meal), and bars. In these circumstances, own or personal experience seemed more important (n=587, 85.07%) to respondents compared to purchasing wine at off-premise locations where other information sources were considered. The recommendations from friends or family members (n=442, 64.06%) are more or less equally important when choosing wine at on-premise- and off-premise locations while the recommendations from a salesperson seem more important at on-premise- (n=277, 40.14%) than at off-premise locations. Like off-premise locations, printed information, internet searches, TV- or radio infomercials and advertisements as well as promotional materials seem to be of little or no importance to the respondents when selecting wine at on-premise locations. At restaurants, for example, the consumer is limited to the wine alternatives offered on the establishment's wine list and/ or promotional material. As such, usage experience will be very important (Dodd *et al.*, 2005). Jaeger *et al.* (2009) found that more involved wine consumers were better able to remember the previous bottle of wine (type) they bought. Wine consumers with more objective wine knowledge (as in the case of this study) make use of impersonal information sources (advertising and published materials) at restaurants and are less likely to rely on personal experience to conclude a decision. Possible reasons provided by the researchers, are that wine consumers are more willing to try new wines (variety-seeking) at restaurants and there are fewer opportunities to peruse and compare wines (Dodd *et al.*, 2005). When presented with possible social risk such as the probability of selecting the wrong wine for an occasion or gaining disapproval from peers, wine consumers tend to use more information sources to reduce the risk (Aqueveque, 2006).

In both sales contexts, wine consumers who feel confident in their perceived ability/ knowledge to select wine, rely on their own knowledge and published materials (Dodd *et al.*, 2005) and are reluctant to make use of personal information sources (recommendations from salespersons, friends and/or family members).

Rasmussen and Lockshin (1999) found that wine consumers with average or above average subjective knowledge of wine (as in the case of this study) depend more on published materials such as reading wine books, wine magazines and newspapers as well as information presented at cellars. Similar results were obtained by Barber *et al.* (2008b) and Ndanga *et al.* (2008), with the addition of advertisements and radio respectively. Ndanga *et al.* (2008) highlight the importance of radio and print media with regard to wine selections. Low involved/ -interested consumers apparently rely on recommendations from friends or family (Rasmussen, 2001), i.e. recommendations from friends and family are valued by wine consumers with low self-confidence. Also, own experience is valued more by consumers with high self-confidence and high subjective knowledge (what they think they know) (Barber, 2008). Like this study, Barber (2009) found own experience to be the most important information source and POS information the least important.

Atkin and Thach (2012) suggest the incorporation of QR-codes (Quick Response codes are a marketing tool used to provide consumers with POS information and can be scanned via various apps on smart devices (Higgins *et al.*, 2014)) in POS materials to provide consumers with easier access to more information regarding the wines that are available.

5.5.2 WCSC at off-premise locations (Objective 2.1)

Question 11 of the measuring instrument (questionnaire) examined the self-confidence of consumers when selecting wine at **off-premise** locations. As this scale has not been used in the South African wine context before, the original Wine Self-Confidence Scale (Olsen *et al.*, 2003) was adapted to reduce the number of scale items, and to make the statements more applicable to the purchasing setting as well as to address wine purchases in different sales contexts. Respondents responded to a five-point Likert-type *Agreement* scale.

5.5.2.1 EFA to determine dimensions of WCSC at off-premise locations

The Statistical Package for Social Science (SPSS) was used to conduct exploratory factor analysis (EFA) by means of Principal Axis Factoring and Oblimin Rotation Method with Kaiser Normalization to determine the underlying factors of the scale. The original scale that served as inspiration in this research was developed by Bearden *et al.* (2001) and the adapted scale (to the wine context) by Olsen *et al.* (2003). The scale items did not quite fit within four or two factor structures (like the original scales) even though the Eigen values for four factors were >1. Therefore, three factors for each of the two sales contexts (on-premise and off-premise) were generated (see Table 5.32), which also allowed for better comparison between the two sales contexts. The total variance explained for the *off-premise locations* equalled to 54.77% and considered an acceptable norm for total variance explained (Mazzocchi, 2008:222). Cronbach alphas for the three factors ranged from 0.761 to 0.928, which were relatively high, acceptable and an indication of internal consistency within the factors**.** Factor loadings equal to or greater than 0.40 were accepted.

Three factors instead of six underlying dimensions as with the original scale were formed. The scale items within the factors were closely analysed to ascertain the link between them and the three factors of off-premise locations were named as:

Factor 1:	Decision Confidence	(11 scale items)
Factor 2:	Apprehension	(7 scale items)
Factor 3:	Coaxing Knowledge	(5 scale items)

As the scale items in terms of their factor loadings fit the best into three factors rather than the original six dimensions, an in-depth look into the factors and their scale items are important.

Factor 1: Decision Confidence

Factor 1 was labelled **Decision Confidence** and consists of a combination of the scale items of the Social Outcomes, Information Acquisition and Consideration Set Formation dimensions, as indicated in Table 5.32. One item of Persuasion Knowledge, "I have the ability to use sales gimmicks to my advantage", also diverted to this factor. All the scale items indicate the inspiration to, and possession of confidence when selecting and purchasing wine. The composition of the factor is:

- Four scale items originating from Olsen *et al.* (2003)'s dimension Information Acquisition (DM) indicating the "skills" to acquire information before making a wine purchase and knowing where to look for information.
- Four scale items originating from Olsen *et al.* (2003)'s dimension Social Outcomes (DM) indicating the ability to choose the correct wine for an occasion and what peers think of one's wine selections/purchases.
- Two scale items originating from Olsen *et al.* (2003)'s dimension Consideration Set-Formation, Wine (DM) relating to the identification and purchasing of wine brands.
- One scale item originating from Olsen *et al.* (2003)'s dimension Persuasion Knowledge (PROT), "I have the ability to use sales gimmicks to my advantage", indicating the follow-through of confidence in the purchasing context.

Factor 2: Apprehension

Seven scale items from Personal Outcomes and Marketplace Interfaces merged to form Factor 2, Apprehension (Anxiety associated with wine purchases). These scale items focus on the personal anxiousness of the consumer when selecting a wine:

- Four scale items originating from Olsen *et al.* (2003)'s dimension Marketplace Interfaces (PROT) concerning consumers' ability to assert themselves in the purchasing context.
- Three scale items originating from Olsen *et al.* (2003)'s dimension Personal Outcomes (DM) indicating dissatisfaction with wine decisions and purchases. A fourth scale item ("I am frequently concerned about which wine to buy") with a factor loading of 0.359 loaded onto this factor, which was deemed as unacceptable and omitted from the factors all together.

Factor 3: Coaxing Knowledge

The last factor combined items relating to Persuasion Knowledge plus two Consideration Set Formation scale items and was named Coaxing knowledge to acknowledge that the new factor differs in content from the original factor.

- Three scale items were retained from Olsen *et al.* (2003)'s dimension Persuasion Knowledge (PROT) that focus on sales tactics used to persuade consumers into buying wine and consumers' subsequent reactions.
- Two scale items were derived from Olsen *et al.* (2003)'s dimension Consideration-Set Formation scale items "I can tell which brands of wine will meet my expectations" and "I can easily limit my focus on a few good brands of wine when making a decision" that suggest resistance to persuasion tactics.

Concluding Remark

The original scale as validated by Olsen *et al.* (2003) for the wine context consisted of two higher order dimensions, namely *Decision-Making* and *Consumer Protection, with* a total of six underlying dimensions. The wording of the scale items used in this study was altered to better suit the purchasing context as well as to reduce ambiguity or confusion. After conducting exploratory factor analysis, the scale items realigned to form three factors (in the South African context). The related Cronbach's Alpha values, indicated satisfactory internal consistency of the underlying dimensions of the scale. The EFA outcomes are presented in Table 5.32.

TABLE 5.32: FACTORS REPRESENTING THE DIMENSIONS OF WINE CONSUMERS' CSC AT OFF-PREMISE LOCATIONS

DIMENSION from (Olsen *et al.*, 2003)	ITEMS	FACTOR 1 DECISION CONFIDENCE	FACTOR 2 APPREHENSION	FACTOR 3 COAXING KNOWLEDGE
SO	My friends are impressed with my ability to pair wine and food.	0.846		
SO	I receive compliments on my ability to distinguish between wines.	0.779		
IA	I know the right questions to ask when shopping for wine.	0.720		
SO	I impress people with the wine purchases I make.	0.710		
IA	I know where to find the information I need prior to making a wine purchase.	0.645		
IA	I am confident in my ability to do an investigation about wine prior to a purchase.	0.645		
SO	I have the ability to choose a good wine for an occasion.	0.639		
CSF	I am confident in my ability to recognise a good brand of wine worth considering.	0.580		
PK	I have the ability to use sales gimmicks to my advantage.	0.544		
CSF	I trust my own judgement to identify good wine brands prior to a purchase.	0.479		
IA	I have the skills required to obtain needed information before making a wine purchase.	0.473		
PO	Too often the wine I buy is not satisfying.		0.693	
MI	I am too timid to speak up when I have a problem with the wine I choose.		0.668	
MI	I do not like to tell the salesperson that it is the wrong wine for me.		0.631	
PO	I often doubt the wine purchase decisions I make.		0.589	
PO	I never seem to buy the right wine for me.		0.578	
MI	I am afraid to ask to speak to someone in a store with expertise in wine.		0.558	
MI	I am unwilling to complain to a store manager about the service I receive when purchasing wine.		0.471	
PO	**I am frequently concerned about which wine to buy.**		**0.359**	
PK	I can see through the sales gimmicks used to get people to buy wine.			0.781
PK	I have no trouble seeing through the bargaining tactics used by salespersons.			0.633
PK	I know when a salesperson is trying to pressure me to buy a particular wine.			0.507
CSF	I can tell which brands of wine will meet my expectations.			0.487
CSF	I can easily limit my focus on a few good brands of wine when making a decision.			0.407
	N	690	690	690
	Mean	3.34	2.11	3.69
	Standard Deviation	0.74	0.59	0.71
	% Variance Explained	37.24	12.40	5.13
	Cronbach Alpha	0.928	0.780	0.761

5.5.2.2 Interpretation of the dimensions of WCSC for off-premise locations

Table 5.33 indicates the description or interpretation of the mean values scored for each factor. The scale items in Factor 2 are worded negatively (e.g. "I often doubt…", "I am too timid…", "I do not like to tell" etc.) and therefore the description of CSC of this factor will be the reverse of Factors 1 and 3.

TABLE 5.33: OPERATIONALISATION OF MEAN VALUES FOR WCSC

Interpretation of WCSC means for Factors 1 and 3	WCSC in different sales contexts (Max.=5)	Interpretation of WCSC means for Factor 2*
Very low	>0 – <2	High
Low	2 – <2.5	Above average
Average	2.5 – 3	Average
Above average	>3 – 4	Low
High	>4	Very low

* Statements in the reverse

Based on the means presented in Table 5.32 the three factors that are relevant at **off-premise locations**, are interpreted as follows:

Decision Confidence: This factor contains 11 scale items, indicating the motivation to, and possession of confidence when selecting and purchasing wine. Information is valuable in boosting confidence when selecting wine. Having the skills to acquire information, knowing where to find this information and which questions to ask when shopping for wine, may help to reduce decision conflict. Regarding Factor 1 (**Decision Confidence**) wine consumers were found to be fairly confident when selecting wine at off-premise locations (M=3.34). Positive social outcomes, such as admiration and compliments from peers can also boost decision confidence when purchasing wine. Knowledge, through information and usage experience can be valuable for consumers to trust in their own judgement and to recognise a good brand of wine. If a consumer has decision confidence, he or she may have the ability to use sales gimmicks to their advantage.

Apprehension: Regarding Factor 2 (**Apprehension**), the low mean (M=2.11) suggests above average self-confidence when selecting wine at off-premise locations. This factor consists of eight scale items that focus on the personal limitations of the consumer when selecting a wine. During the purchase decision, if a consumer lacks self-confidence to assert themselves, they often feel unsatisfied with the wine they buy and feel that the purchase decision is overwhelming.

Coaxing Knowledge: Knowing which wine brands will suit one's needs, may enable one to use persuasive tactics to one's advantage. Regarding Factor 3 (**Coaxing Knowledge**), wine consumers were fairly confident when selecting wine at off-premise locations (M=3.69). Wine consumers may find wine purchase decisions intimidating and be concerned about selecting the correct wine as there are numerous wine brands, label designs and information available (Barber *et al.*, 2008a; Barber *et al.*, 2007b). Wine consumers with high self-

confidence are more likely to purchase a wine from an unfamiliar grape variety when purchasing wine as a gift (Olsen *et al.*, 2003). When purchasing wine for enjoyment at home, consumers with more self-confidence in the SO dimension/factor are apparently willing to demonstrate variety-seeking. However, if their self-confidence is low in MI, they would rather select familiar brands (Olsen *et al.*, 2003). In this study, wine consumers were found to possess an average/ above average CSC for both of these dimensions and therefore, one can expect that this sample of consumers may be inclined to try new wines, concurring with their high interest with or involvement in wine.

5.5.3 WCSC at on-premise locations (Objective 2.2)

Question 12 of the measuring instrument (questionnaire) examined the self-confidence of consumers when selecting wine at **on-premise** locations. Again the original Wine Self-Confidence Scale (Olsen *et al.*, 2003) was adapted to reduce the number of scale items, and to make the statements more applicable to the purchasing setting; also to adapt it to wine purchases in specific sales contexts. Respondents were asked to indicate their level of agreement for the scale items on a five-point Likert-type *Agreement* scale.

5.5.3.1 EFA to determine dimensions of WCSC at on-premise locations

As was done for off-premise locations, exploratory factor analysis (EFA) was used to determine the number of factors/ dimensions of the scale in the context of this study. Again, the scale items did not quite fit well within four or two factors despite the Eigen values being >1. Therefore, three factors relating to CSC for on-premise locations were generated, allowing for a comparison between the two sales contexts. The total variance explained equalled to 61.86% and considered acceptable (Mazzocchi, 2008:222) (refer to Table 5.34). Cronbach's Alphas for the three factors ranged from 0.849 to 0.945, which again were relatively high. Factor loadings equal to or greater than 0.40 were accepted. Three factors were distinguished and the scale items within the factors were closely analysed to ascertain similarities with the three factors extracted for on-premise locations. The factors were labelled:

Factor 1:	Proficiency	(13 scale items)
Factor 2:	Apprehension	(8 scale items)
Factor 3:	Social Outcomes	(3 scale items)

Factor 1: Proficiency

Factor 1 addresses the abilities of the consumer to select the right wine and integrates scale items of the following factors of the original scales: Persuasion knowledge, Information acquisition and Consideration set formation, i.e.:

- Four scale items from Olsen *et al.* (2003)'s dimension Persuasion knowledge (PROT) focus on the sales tactics used to persuade consumers into buying wine and consumers' ability/ confidence to not be persuaded by them.
- Four scale items originating from Olsen *et al.* (2003)'s dimension Consideration set formation (DM) pertaining to the formation of an evoked set of wine brands and being able to select a good wine from it.
- Four scale items originating from Olsen *et al.* (2003)'s dimension Information acquisition (DM) indicating the "skills" to acquire information before making a wine purchase and knowing where to look for information.
- One scale item originating from Olsen *et al.* (2003)'s dimension Social outcomes (DM) indicating the ability to choose the correct wine for an occasion and what peers think of one's wine selections/purchases.

Factor 2: Apprehension

Eight scale items from Personal outcomes and Marketplace interfaces merged to form this factor. These scale items focus on the personal limitations of the consumer when selecting wine, i.e.:

- Four scale items originating from Olsen *et al.* (2003)'s dimension Marketplace interfaces (PROT) concerning consumers' ability to assert themselves in the purchasing context.
- Four scale items originating from Olsen *et al.* (2003)'s dimension Personal outcomes (DM) indicating dissatisfaction with wine decisions and purchases.

Factor 3: Social Outcomes

Three of the Social Outcomes scale items merged to address the social implications of selecting wine.

- Three scale items originating from Olsen *et al.* (2003)'s dimension Social outcomes (DM) indicating the ability to choose the correct wine for an occasion and what peers think of one's wine selections/purchases.

TABLE 5.34: FACTORS REPRESENTING THE DIMENSIONS OF WINE CONSUMERS' CSC AT ON-PREMISE LOCATIONS

Dimension (Olsen *et al.*, 2003)	ITEMS	FACTOR 1	FACTOR 2	FACTOR 3
		PROFICIENCY	APPREHENSION	SOCIAL OUTCOME
PK	I know when a waiter is trying to pressure me to buy a particular wine.	0.876		
PK	I can see through the sales gimmicks used to get people to buy wine.	0.794		
PK	I have no trouble seeing through the bargaining tactics used by waiters.	0.786		
CSF	I can easily limit my focus on a few good brands of wine when making a decision.	0.706		
CSF	I can tell which brands of wine will meet my expectations.	0.684		
CSF	I trust my own judgement to identify good wine brands prior to a purchase.	0.652		
CSF	I am confident in my ability to recognise a good brand of wine worth considering.	0.615		
IA	I know where to find the information I need prior to making a wine purchase.	0.598		
IA	I have the skills required to obtain needed information before making a wine purchase.	0.546		
IA	I am confident in my ability to do an investigation about wine prior to a purchase.	0.529		
SO	I have the ability to choose a good wine for an occasion.	0.521		
IA	I know the right questions to ask when ordering wine.	0.479		
PK	I have the ability to use sales gimmicks to my advantage.	0.472		
PO	I often doubt the wine purchase decisions I make.		0.760	
PO	Too often the wine I buy is not satisfying.		0.739	
MI	I am too timid to speak up when I have a problem with the wine I choose.		0.736	
PO	I never seem to buy the right wine for me.		0.691	
MI	I am afraid to ask to speak to someone in a restaurant, bar or hotel with expertise in wine.		0.684	
MI	I do not like to tell the waiter that it is the wrong wine for me.		0.618	
MI	I am unwilling to complain to a waiter about the service I receive when purchasing wine.		0.588	
PO	I am frequently concerned about which wine to buy.		0.430	
SO	I receive compliments on my ability to distinguish between wines.			-0.833
SO	My friends are impressed with my ability to pair wine and food.			-0.820
SO	I impress people with the wine purchases I make.			-0.776
	N	690	690	690
	Mean	3.68	2.08	3.12
	Standard Deviation	0.68	0.63	0.86
	% Variance Explained	41.29	14.48	6.09
	Cronbach Alpha	0.945	0.849	0.902

Concluding remarks

The original scale as validated by Olsen *et al.* (2003) for the wine context consisted of two higher order dimensions, Decision-Making and Consumer Protection and six underlying dimensions. The wording of the scale items used in this study was altered to better suit the purchasing context as well as to reduce ambiguity or confusion. Through exploratory factor analysis, it was determined that the scale items aligned better to the three factors which were accepted due to the high Cronbach's Alpha values that indicated good internal consistency within the different factors.

5.5.3.2 Interpretation of the dimensions of WCSC scale for on-premise locations

Table 5.34 presents the mean values for the three factors of CSC at on-premise locations (refer to Table 5.33 for interpretation).

Proficiency: This dimension of CSC addresses the ability of the consumer to select the right wine. The abilities of the consumer include i) being able to gather information needed; ii) to create an evoked set of wines that will suit the consumers' needs and iii) being able to use persuasive tactics to his/her advantage in the purchasing context. Similarly, to off-premise locations, the mean values of Factor 1 (**Proficiency**) indicated that wine consumers are fairly confident when selecting wine at on-premise locations (M=3.68). Previous literature has placed emphasis on the importance of information acquisition to reduce decision conflict (Atkin and Thach, 2012; Barber *et al.*, 2009a).

Apprehension: This factor focuses on the consumer's personal limitations during and outside of the purchasing context. The mean (M=2.08) for Factor 2 (**Apprehension**) that is inversely interpreted indicated that wine consumers have an above average self-confidence when selecting wine at on-premise locations. Often consumers feel that the wine they bought did not suit their needs and it is hard to determine which wine will suit a consumer's needs as wine can only be assessed on extrinsic cues during purchasing (Balestrini and Gamble, 2006; Jacoby and Olson, 1985; Kallas *et al.*, 2013; Lockshin *et al.*, 2006; Lockshin and Spawton, 2001; Robinson, 2016; Thomas and Pickering, 2003; Zeithaml, 1988). In addition, when consumers are confronted with the purchasing decision, some may find it hard to express their needs, which is apparently not such a problem in the context of this study.

Social Outcome: Due to the nature of on-premise locations and the fact that social implications are in most cases unavoidable, consumers may feel intimidated to select wines that may influence the status and perception of the consumer in the minds of his/her peers. However, similar to off-premise locations, the mean value Factor 3 (**Social Outcomes**) indicated that wine consumers are fairly confident when selecting wine at on-premise locations (M=3.12).

Wine is perceived by some individuals as a "high status" beverage (Cox, 2009) and wine consumers are generally less confident when selecting a wine at a restaurant (on-premise location) than at a store (off-premise location) (Lockshin and Corsi, 2012). Interestingly, wine consumers learn more about wine through wine experiences at restaurants, which is carried over to their wine purchasing behaviour at off-premise locations (Lockshin and Corsi, 2012). One study also found that wine consumers choose more expensive wines if classical music is played in the background as it creates the image of "prestige and sophistication" (Areni and Kim, 1993).

The results pertaining to Factor 3, Social outcomes, is an important finding as it indicates that consumers are quite confident when selecting a wine often in front and/or for other people. Spawton (1991) proposed that wine connoisseurs may place more value on the wine decision when it is bought as a gift as they may experience "greater ego loss" if they purchased the wrong wine. Jaeger *et al.* (2010) found that wine consumers place great importance on occasions and that it will influence the wine selections they make. For example, the wine choice is more important (most important to least important) when it is for a special occasion, going to be enjoyed with friends or business colleagues or for personal consumption. Wine consumers are also more willing to consult more information sources if they perceive a social risk, i.e. that their peers will not approve the wine choice (Aqueveque, 2006). The perceived social risk increases the more public the occasion is (Aqueveque, 2006).

Wine consumers with low self-confidence in MI tend to stick to familiar brands and are reluctant or "uncomfortable" to complain or send the wine back if it does not meet their expectations (Olsen *et al.*, 2003).

It is suggested that restaurant, hotel and bar owners should focus on creating an environment that simulates and emulates sophistication and prestige if they want consumers to purchase more expensive wines. They should also ensure that waiters and front of house managers are knowledgeable in wine in order to ease the purchase decision for the customer as 40% of the respondents of this study reported recommendations from salespersons/ waiters as important.

5.5.3.3 Comparison of EFA of different sales contexts

The content of the factors of the two sales contexts are compared in Table 5.35 and discussed below to indicate the differences in consumers' CSC in terms of wine selection at on-premise versus off-premise locations.

TABLE 5.35: COMPARISON OF FACTOR SCALE ITEMS AT OFF-PREMISE AND ON-PREMISE LOCATIONS

CSC AT OFF-PREMISE LOCATIONS			CSC AT ON-PREMISE LOCATIONS		
FACTOR NAMES	DIMENSION: Olsen *et al.* (2003)	ITEMS	FACTOR NAMES	DIMENSION: Olsen *et al.* (2003)	ITEMS
DECISION CONFIDENCE	IA	I know the right questions to ask when shopping for wine.	PROFICIENCY	IA	I know the right questions to ask when ordering wine.
	IA	I have the skills required to obtain needed information before making a wine purchase.		IA	I have the skills required to obtain needed information before making a wine purchase.
	IA	I know where to find the information I need prior to making a wine purchase.		IA	I know where to find the information I need prior to making a wine purchase.
	IA	I am confident in my ability to do an investigation about wine prior to a purchase.		IA	I am confident in my ability to do an investigation about wine prior to a purchase.
	CSF	I am confident in my ability to recognise a good brand of wine worth considering.		CSF	I am confident in my ability to recognise a good brand of wine worth considering.
	CSF	I trust my own judgement to identify good wine brands prior to a purchase.		CSF	I trust my own judgement to identify good wine brands prior to a purchase.
	PK	I have the ability to use sales gimmicks to my advantage.		PK	I have the ability to use sales gimmicks to my advantage.
	SO	I have the ability to choose a good wine for an occasion.		SO	I have the ability to choose a good wine for an occasion.
	SO	My friends are impressed with my ability to pair wine and food.		PK	I know when a waiter is trying to pressure me to buy a particular wine.
	SO	I impress people with the wine purchases I make.		PK	I can see through the sales gimmicks used to get people to buy wine.
	SO	I receive compliments on my ability to distinguish between wines.		PK	I have no trouble seeing through the bargaining tactics used by waiters.
				CSF	I can easily limit my focus on a few good brands of wine when making a decision.
				CSF	I can tell which brands of wine will meet my expectations.
APPREHENSION	PO	Too often the wine I buy is not satisfying.	APPREHENSION	PO	Too often the wine I buy is not satisfying.
	PO	I never seem to buy the right wine for me.		PO	I never seem to buy the right wine for me.
	PO	I am frequently concerned about which wine to buy.*		PO	I am frequently concerned about which wine to buy.
	PO	I often doubt the wine purchase decisions I make.		PO	I often doubt the wine purchase decisions I make.
	MI	I am afraid to ask to speak to someone in a store with expertise in wine.		MI	I am afraid to ask to speak to someone in a restaurant, bar or hotel with expertise in wine.
	MI	I do not like to tell the salesperson that it is the wrong wine for me.		MI	I do not like to tell the waiter that it is the wrong wine for me.
	MI	I am unwilling to complain to a store manager about the service I receive when purchasing wine.		MI	I am unwilling to complain to a waiter about the service I receive when purchasing wine.
	MI	I am too timid to speak up when I have a problem with the wine I choose.		MI	I am too timid to speak up when I have a problem with the wine I choose.
COAXING KNOWLEDGE	PK	I can see through the sales gimmicks used to get people to buy wine.	SOCIAL OUTCOME	SO	I receive compliments on my ability to distinguish between wines.
	PK	I have no trouble seeing through the bargaining tactics used by salespersons.		SO	My friends are impressed with my ability to pair wine and food.
	PK	I know when a salesperson is trying to pressure me to buy a particular wine.		SO	I impress people with the wine purchases I make.
	CSF	I can tell which brands of wine will meet my expectations.			
	CSF	I can easily limit my focus on a few good brands of wine when making a decision.			

*Factor loading smaller than 0.4.

Factor 1: Decision Confidence and Proficiency

Both Factors 1 comprise of scale items derived from the original scales' Information Acquisition and Consideration Set Formation dimensions. F1 Decision Confidence (off-premise location) also contain Social Outcomes scale items and F1 Proficiency (on-premise location) contain Persuasion Knowledge scale items. With off-premise locations the social outcomes or implications may not necessarily be immediate and it seems as though these topics relate to previous positive social outcomes ("impressed", "compliments") that built the consumer's confidence for future wine purchases. The PK scale items at on-premise locations, seem to indicate that consumers' have the ability to assert themselves whilst confronted with persuasive tactics during the wine selection process.

Factor 2: Apprehension

Both factors contain the same scale items from the dimensions Personal Outcomes and Marketplace Interfaces and were therefore labelled the same. In both cases, wine consumers' self-confidence was slightly above average. Not only are consumers satisfied with their wine choices (PO) but they also are not afraid or timid to speak up when the wine suggested by a waiter or salesperson is undesirable (MI).

Factor 3: Coaxing Knowledge and Social Outcome

These two factors differ completely as F3, Coaxing Knowledge contain PK and CSF scale items and F3 Social Outcomes contain those from the SO dimension. The consumers that have CSC in terms of PK and CSF know when an offer is not genuine and which wines will suit their needs (Olsen *et al.*, 2003). At on-premise locations, social outcomes (such as admiration from peers) may be immediate whereas with off-premise locations, social outcomes are not necessarily immediate and previous positive social outcomes can rather be channelled into confidence when making the next purchasing decision.

Concluding remarks

Barber (2008) found that consumers with high self-confidence have more objective knowledge, while Veale (2008) found a similar relationship between consumers' subjective wine knowledge and their self-confidence when selecting wine. The results of this study indicate that the CSC (considering all the dimensions of CSC for both contexts) of the wine consumers who formed part of the sample of investigation, was average when selecting and purchasing wine – probably due to their moderate subjective knowledge about wine which was lower than their above average objective wine knowledge. Therefore, because they think they know less, their CSC may be jeopardised.

In this research study, the respondents answered the objective questions fairly well, scoring average to above average in the test, while their self-assessed wine knowledge was slightly lower. As such, it is not unexpected that their CSC is also in the range of average to above average for the different dimensions of CSC. As the majority of the sample indicated that they are involved/ interested in wine, it was expected that they would display a fair amount of confidence as explained in the study of Johnson and Bruwer (2007).

Even though the dimensions of the CSC scale differed from the original scale (Olsen *et al.*, 2003), the research provides valuable evidence in the context of this study, showing the similarities and differences of wine consumers' self-confidence when selecting wine at different locations, which was not captured in the original scale as little attention has been given in research to contextual differences before.

5.5.4 WCSC of different demographic groups

One-way analysis of variance (ANOVA) and two-tailed t-tests were performed to detect possible significant differences in the WCSC (CSC when purchasing wine) among different demographic groups within particular demographic categories in different sales contexts.

Each of the two questions (for the two sales contexts) included 24 scale items that were adapted from the original WSCS (Olsen *et al.*, 2003), which were scored on a five-point Likert-type agreement scale (i.e. a maximum of five could be scored by the respondents). Table 5.34 in Section 5.5.2.2 presents the relationship between/ operationalisation of the maximum scores of the CSC questions. A summary of the results as per the sub-objectives of the study can be found in Section 6.2.2.

5.5.4.1 Gender differences (Sub-objective 2.1.1 and 2.2.1)

Analyses to determine possible significant differences between male and females' t-tests. Results are presented in Table 5.36 and can be summarised as follows:

At off-premise locations, for all three dimensions, the WCSC of males significantly exceeds the WCSC of females, i.e.:

- **Decision Confidence:** Males' WCSC: $M_{Off.}$ = 3.42; Females' WCSC: $M_{Off.}$ = 3.30; p=0.03.
- **Apprehension**: Males' WCSC: $M_{Off.}$ = 2.08; Females' WCSC: $M_{Off.}$ = 2.18; p=0.03.
- **Coaxing Knowledge** Males' WCSC: $M_{Off.}$ = 3.75; Females' WCSC: $M_{Off.}$ = 3.60; p=0.01.

At on-premise locations, for all three dimensions, the WCSC of males significantly exceeds the WCSC of females, i.e.:

- **Proficiency:** Males' WCSC: $M_{On.}$ = 3.75; Females' WCSC: $M_{On.}$ = 3.59; p <0.00.
- **Apprehension:** Male consumers' WCSC: $M_{On.}$ = 2.02; Females' WCSC: $M_{On.}$ = 2.13; p=0.02.

For the dimension **Social Outcomes**, the WCSC for males and females were almost similar. Bearden *et al.* (2001) found similar results and explained that females regard relationships with others as very important and therefore they are more confident in this dimension.

The Cohen's effect size values for all the factors were small and therefore the practical significance of the results is low.

Irrespective of gender, consumers' WCSC was above average CSC for all six factors and therefore are fairly confident in their ability to select the right wine whether at off-premise or on-premise locations.

Male as well as female wine consumers were more self-confident in terms of the dimensions "Proficiency" and "Apprehension" at on-premise locations, and in terms of "Coaxing Knowledge" at off-premise locations. ***This pattern repeats itself for all the demographic categories in the following sections and is discussed at the end of this chapter in Section 5.5.4.7.***

This study indicates that gender is a significant predictor of wine consumers' self-confidence during wine purchases at on-premise as well as off-premise locations, with indications that male consumers' WCSC significantly exceeds that of females for five of the six dimensions of WCSC. The only explanation found in literature, is that wine purchasing is seen as a "high status act" that is male-dominated (Nicolson, 1990) and that men are therefore generally responsible for selecting and purchasing the wine. Furthermore, one study found that men purchase wine more frequently than females do by 10% (Kelley *et al.*, 2015). A shift is evident in viewing wine purchases as a typical male activity. In the last fifteen years, Generation X females are reported to be the main decision makers when it comes to wine purchase decisions (Bruwer *et al.*, 2005) and more females than males drink wine (Kelley *et al.*, 2015). Nonetheless, females are more afraid of selecting the wrong wine for an occasion and as such, marketers should focus their efforts on reducing the anxiety associated with wine purchases for females (Barber *et al.*, 2006).

Throughout the following section, a pattern emerges whereby wine consumers across all demographic categories have more WCSC with regard to the dimensions **Proficiency** and **Apprehension** at on-premise locations as well as for **Coaxing Knowledge** at off-premise locations, i.e. they have more trust in their own abilities to select a wine at a restaurant, bar or hotel etc. than at a retail store, liquor store or wine speciality store, etc. Furthermore, they are less hesitant when selecting a wine at a restaurant, bar or hotel. They do, however, have lower WCSC, or are more aware of the social outcomes when selecting a wine at a restaurant, bar or hotel than when doing so at a retail store, liquor store or wine speciality store, etc.

TABLE 5.36: GENDER DIFFERENCES IN CONSUMERS' WCSC IN DIFFERENT SALES CONTEXTS (N = 690)

Sales Contexts	Gender	n	Mean (M_{Max} = 5)	SD	SEM	ANOVA Sig.	Cohen's *d* Standardised effect size*
Off-Premise F1: Decision Confidence	**Female**	294	3.30	0.79	0.05	0.03	-0.17
	Male	396	3.42	0.68	0.03		
Off-Premise F2: Apprehension	**Female**	294	2.18	0.61	0.04	0.03	0.18
	Male	396	2.08	0.53	0.03		
Off-Premise F3: Coaxing Knowledge	**Female**	294	3.60	0.77	0.05	0.01	-0.14
	Male	396	3.75	0.66	0.03		
On-Premise F1: Proficiency	**Female**	294	3.59	0.73	0.04	0.00	-0.23
	Male	396	3.75	0.63	0.03		
On-Premise F2: Apprehension	**Female**	294	2.13	0.66	0.04	0.02	0.25
	Male	396	2.02	0.57	0.03		
On-Premise F3: Social Outcome	**Female**	294	3.11	0.88	0.05	0.72	-0.03
	Male	396	3.13	0.85	0.04		

Values in red indicate significant differences at p≤0.05. **d*=0.2 is considered a small effect size, *d*=0.5 is considered a medium effect size and *d*=0.8 is considered a large effect size.

5.5.4.2 Age differences (Sub-objective 2.1.2 and 2.2.2)

Possible significant differences among different age groups were detected by way of ANOVA and a post hoc Scheffe test, resulting in three dimensions of WCSC factors revealing significant differences ($p \leq 0.05$) as presented in Table 5.37 (ANOVA) and Table 5.38 (Post hoc Scheffe test).

Significant differences in the WCSC of different age groups per the different dimensions of the construct at **off-premise locations** are:

- **Apprehension**: Millennials' WCSC ($M_{Off.}$ = 2.28) is significantly lower (p=0.01) compared to Baby Boomers' WCSC: M = 2.06, and the Greatest Generation's WCSC ($M_{Off.}$ = 2.05) that were above average and very similar. (For this dimension, the means are inversely interpreted as discussed earlier).

Significant differences in the WCSC of different age groups per the different dimensions of the construct at **on-premise locations** are:

- **Proficiency**: Across all the age groups, consumers' WCSC is above average, although the WCSC of Millennials ($M_{On.}$ = 3.49) is significantly lower (p=0.01) than that of Baby Boomers ($M_{On.}$= 3.74) as well as the Greatest Generation ($M_{On.}$= 3.78; p=0.04).
- **Apprehension:** Millennials' WCSC ($M_{On.}$ = 2.23) is significantly lower (although above average) than Baby Boomers' WCSC ($M_{On.}$ = 1.98) that indicates high WCSC. (For this dimension, the means are inversely interpreted as discussed earlier).

Age is significant in terms of wine consumers' self-confidence during wine purchases at on-premise as well as off-premise locations because older consumers have had more years of product exposure and usage experience, as well as established wine preferences and habits (Teagle *et al.*, 2010). This study found that Millennials' WCSC is significantly lower than that of older consumers for three of the six dimensions of WCSC. Researchers are divided on whether older wine consumers that have worked longer have more disposable income (Atkin and Thach, 2012; Resnick, 2008:62; Ritchie, 2011) than younger wine consumers who have fewer financial obligations and therefore more disposable income to spend on wine experiences (Teagle *et al.*, 2010). It has been found that Millennials drink wine less frequently than their older counterparts (Teagle *et al.*, 2010) and also spend less on wine than wine consumers from the Elders (Greatest Generation) group (Atkin and Thach, 2012). Nevertheless, Teagle *et al.* (2010) found that Millennials are more willing to pay a slightly higher price for wine than older consumers.

Like this study, Barber (2008) found that Millennials possess lower objective and subjective knowledge as well as lower self-confidence than Baby Boomers and older wine consumers. Similarly, Millennials have less purchase confidence or self-confidence than other age groups, especially Generation X (Barber, Taylor and Dodd, 2008c). Another study found that almost 30% of wine consumers under the age of 35 (at the time of the study) were afraid of selecting the wrong wine (Barber *et al.*, 2008a). This correlates with findings from Barber *et al.* (2006) who found that younger wine consumers are more "intimidated" by wine.

TABLE 5.37: AGE GROUP DIFFERENCES IN CONSUMERS' CSC IN DIFFERENT SALES CONTEXTS

Age Groups		Off-Premise			On-Premise		
		F1: Decision Confidence	F2: Apprehension	F3: Coaxing Knowledge	F1: Proficiency	F2: Apprehension	F3: Social Outcome
Millennials	**Mean**	3.27	2.28	3.54	3.49	2.23	3.18
n = 110	**SD**	0.89	0.67	0.85	0.82	0.67	0.95
GenXers	**Mean**	3.39	2.13	3.70	3.70	2.10	3.19
n = 202	**SD**	0.67	0.57	0.68	0.59	0.63	0.82
Baby Boomers	**Mean**	3.39	2.06	3.72	3.74	1.98	3.08
n = 296	**SD**	0.72	0.54	0.69	0.66	0.60	0.86
Greatest Generation	**Mean**	3.42	2.05	3.73	3.78	2.05	3.06
n = 72	**SD**	0.68	0.47	0.61	0.53	0.47	0.83
Total	**Mean**	**3.37**	**2.12**	**3.69**	**3.69**	**2.06**	**3.13**
N = 680	**SD**	**0.73**	**0.57**	**0.71**	**0.66**	**0.61**	**0.86**
ANOVA Sig.		0.45	0.01	0.12	0.00	0.00	0.41

Values in red indicate significant differences at p≤0.05.

To the contrary, Barber *et al.* (2008b) could not find significant age differences for wine purchase confidence while Barber (2008) found Millennials were more WCSC than Baby Boomers. Likewise, Teagle *et al.* (2010) found that Millennials are less risk averse and are more willing to try new wines than older wine consumers. It should be noted that these studies used different measurement scales that asked different questions, which may have influenced the interpretations. To conclude, more in-depth research into generational

differences and WCSC is therefore needed to determine the behaviour of South African age cohorts in relation to their WCSC.

TABLE 5.38: POST HOC SCHEFFE OUTCOMES FOR AGE GROUPS

Sales Contexts	Age Categories		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Off-Premise F2: Apprehension	Millennials	Generation X	0.15	0.07	0.19	-0.04	0.33
		Baby Boomers	0.21	0.06	0.01	0.04	0.39
		Greatest Generation	0.22	0.09	0.08	-0.02	0.46
	Generation X	Millennials	-0.15	0.07	0.19	-0.33	0.04
		Baby Boomers	0.07	0.05	0.64	-0.08	0.21
		Greatest Generation	0.07	0.08	0.82	-0.14	0.29
	Baby Boomers	Millennials	-0.21	0.06	0.01	-0.39	-0.04
		Generation X	-0.07	0.05	0.64	-0.21	0.08
		Greatest Generation	0.01	0.07	1.00	-0.20	0.22
	Greatest Generation	Millennials	-0.22	0.09	0.08	-0.46	0.02
		Generation X	-0.07	0.08	0.82	-0.29	0.14
		Baby Boomers	-0.01	0.07	1.00	-0.22	0.20
On-Premise F1: Proficiency	Millennials	Generation X / GenXers	-0.21	0.08	0.07	-0.42	0.01
		Baby Boomers	-0.25	0.07	0.01	-0.45	-0.04
		Greatest Generation	-0.29	0.10	0.04	-0.57	-0.01
	Generation X	Millennials	0.21	0.08	0.07	-0.01	0.42
		Baby Boomers	-0.04	0.06	0.92	-0.21	0.13
		Greatest Generation	-0.08	0.09	0.84	-0.34	0.17
	Baby Boomers	Millennials	0.25	0.07	0.01	0.04	0.45
		Generation X	0.04	0.06	0.92	-0.13	0.21
		Greatest Generation	-0.04	0.09	0.97	-0.28	0.20
	Greatest Generation	Millennials	0.29	0.10	0.04	0.01	0.57
		Generation X	0.08	0.09	0.84	-0.17	0.34
		Baby Boomers	0.04	0.09	0.97	-0.20	0.28
On-Premise F2: Apprehension	Millennials	Generation X	0.13	0.07	0.35	-0.07	0.33
		Baby Boomers	0.25	0.07	0.00	0.06	0.44
		Greatest Generation	0.18	0.09	0.27	-0.08	0.44
	Generation X	Millennials	-0.13	0.07	0.35	-0.33	0.07
		Baby Boomers	0.12	0.06	0.23	-0.04	0.27
		Greatest Generation	0.05	0.08	0.94	-0.18	0.29
	Baby Boomers	Millennials	-0.25	0.07	0.00	-0.44	-0.06
		Generation X	-0.12	0.06	0.23	-0.27	0.04
		Greatest Generation	-0.06	0.08	0.89	-0.29	0.16
	Greatest Generation	Millennials	-0.18	0.09	0.27	-0.44	0.08
		Generation X	-0.05	0.08	0.94	-0.29	0.18
		Baby Boomers	0.06	0.08	0.89	-0.16	0.29

Values in red indicate the mean difference is significant at $p \leq 0.05$ level. Values in blue indicate the mean difference is significant at $p \leq 0.10$ level.

5.5.4.3 Household income differences (Sub-objective 2.1.3 and 2.2.3)

The results for the ANOVA investigation of wine consumers' self-confidence in relation to their monthly household income are presented in Table 5.39 (ANOVA) and Table 5.40 (Post hoc Scheffe tests). Wine consumers who earn <R25 000 per month fall in the low income to lower-middle income groups; those earning ≥R25 000 but <R50 000 per month fall in the middle-income group, while wine consumers who earn more than R50 000 per month were categorised as the high-income group. The existence of significant differences among income groups were evident for all the dimensions of WCSC as further confirmed through the post hoc test.

The significant differences that were found in terms of **off-premise** locations were:

- With regard to the **Decision Confidence** of wine consumers**:**
    - Low to middle-income groups ($M_{Off.}$ = 3.21) is significantly less confident (p=0.09) compared to middle-income consumers ($M_{Off.}$ = 3.36) at 10% significance level.
    - High income consumers ($M_{Off.}$ = 3.54) are significantly more confident than middle-income consumers ($M_{Off.}$ = 3.36; p=0.03) and consumers earning less than R25 000 per month (M = 3.21; p<0.00).

- With regard to **Apprehension,** thus the **anxiousness** of consumers**:**
    - Middle-income consumers ($M_{Off.}$ = 2.18) are significantly less apprehensive/ anxious (p=0.01) than consumers earning R50 000 or more per month ($M_{Off.}$ = 2.03).

- Wine consumers' **Coaxing Knowledge**:
    - Is significantly lower (p=0.04) for low to middle-income consumers ($M_{Off.}$ = 3.52) than the middle-income ($M_{Off.}$ = 3.69); and the high-income groups (M = 3.83) (p<0.00).
    - Is significantly lower (p=0.10) for wine consumers earning R25 000 to R50 000 monthly ($M_{Off.}$ = 3.69) than consumers earning R50 000 or more ($M_{Off.}$ = 3.83) ($p \leq 0.10$).

The significant differences that were found in terms of **on-premise** locations were:

- Regarding wine consumers' **Proficiency**:
    - Those earning ≥R 50 000 per month ($M_{On.}$ = 3.85) are significantly more proficient (skilful) than wine consumers who earn ≥R 25 000 to <R 50 000 monthly ($M_{On.}$ = 3.69; p=0.04), as well as wine consumers in the lowest income groups who earn <R 25 000 monthly ($M_{On.}$ = 3.49; p<0.00).
    - Wine consumers earning <R 25 000 ($M_{On.}$ = 3.49) are significantly less skilful (p=0.01) than wine consumers who earn ≥R 25 000 to <R 50 000 monthly ($M_{On.}$ = 3.69).

- Regarding **Apprehension** associated with wine purchases:
    - Middle-income consumers who earn ≥R25 000 to <R50 000 per month are significantly less anxious ($M_{On.}$ = 2.14) than consumers from the high-income group earning more than R50 000 per month ($M_{On.}$ = 1.97) (p=0.01).

- Regarding the **Social Outcomes** associated with wine purchases:
    - Ability to manage the social outcomes of wine choices is significantly higher ($p<0.00$) among high-income wine consumers ($M_{On.} = 3.26$) compared to the low-income consumers earning <R25 000 monthly ($M_{On.} = 2.96$).
    - Low to middle-income wine consumers ($M_{On.} = 2.96$) are significantly less able to manage the social outcomes related to wine choices ($p=0.06$) compared to middle-income consumers ($M_{On.} = 3.15$) ($p\leq0.10$).

Results hence indicate that consumers with a high income have more WCSC than consumers from the middle and low-income groups. With the exceptions of the dimension **Apprehension** that relate to associated anxiousness, wine consumers of the middle-income group, are more confident than consumers from the low to middle-income group for on-, as well as off-premise wine decisions. In conclusion, wine consumers' monthly household income seems a useful and significant predictor of wine consumers' self-confidence when selecting and purchasing wine in both sales contexts.

Previous studies found that consumers earning less than the average national income, had the lowest and a below average wine self-confidence of all income groups (Barber (2008) Barber *et al.* (2008a), with further indication that wine consumers with higher incomes are more likely to buy more expensive wines (Cox, 2009). One can argue that corporate workers, businessmen and consumers with higher incomes are more socialised in wine as they often attend/ host social events that require skills in wine selection. In a New-Zealand study, 13.7% of respondents indicated that their latest visit to a restaurant where they drank wine, was for work or with business colleagues (Jaeger *et al.*, 2010).

TABLE 5.39: MONTHLY HOUSEHOLD INCOME DIFFERENCES OF WINE CONSUMERS' WCSC

Household Income		Off-Premise			On-Premise		
		F1: Decision Confidence	F2: Apprehension	F3: Coaxing Knowledge	F1: Proficiency	F2: Apprehension	F3: Social Outcome
<R25000 n = 202	**Mean**	3.21	2.14	3.52	3.49	2.08	2.96
	SD	0.89	0.62	0.92	0.86	0.68	0.98
≥R25000 <R50000 n = 262	**Mean**	3.36	2.18	3.69	3.69	2.14	3.15
	SD	0.69	0.58	0.65	0.63	0.62	0.81
≥R50000 n = 221	**Mean**	3.54	2.03	3.83	3.85	1.97	3.26
	SD	0.57	0.49	0.51	0.47	0.53	0.78
Total N = 685	**Mean**	**3.37**	**2.12**	**3.68**	**3.68**	**2.06**	**3.13**
	SD	**0.73**	**0.57**	**0.71**	**0.68**	**0.62**	**0.86**
ANOVA Sig.		0.00	0.01	0.00	0.00	0.01	0.00

Values in red indicate significant differences at $p\leq0.05$.

TABLE 5.40: POST HOC SCHEFFE OUTCOMES FOR MONTHLY HOUSEHOLD INCOME OF WINE CONSUMERS

Sales Contexts	Household Income		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Off-Premise F1: Decision Confidence	<R25000	≥ R 25 000 but < R 50 000	-0.15	0.07	0.09	-0.32	0.02
		≥ R 50 000	-0.33	0.07	0.00	-0.50	-0.15
	≥R25000 but <R50000	Less than R 25 000	0.15	0.07	0.09	-0.02	0.32
		≥ R 50 000	-0.18	0.07	0.03	-0.34	-0.01
	≥R50000	Less than R 25 000	0.33	0.07	0.00	0.15	0.50
		≥ R 25 000 but < R 50 000	0.18	0.07	0.03	0.01	0.34
Off-Premise F2: Apprehension	<R25000	≥ R 25 000 but < R 50 000	-0.04	0.05	0.71	-0.17	0.09
		≥ R 50 000	0.11	0.06	0.12	-0.02	0.25
	≥R25000 but <R50000	Less than R 25 000	0.04	0.05	0.71	-0.09	0.17
		≥ R 50 000	0.16	0.05	0.01	0.03	0.29
	≥R50000	Less than R 25 000	-0.11	0.06	0.12	-0.25	0.02
		≥ R 25 000 but < R 50 000	-0.16	0.05	0.01	-0.29	-0.03
Off-Premise F3: Coaxing Knowledge	<R25000	≥ R 25 000 but < R 50 000	-0.17	0.07	0.04	-0.33	-0.01
		≥ R 50 000	-0.31	0.07	0.00	-0.47	-0.14
	≥R25000 but <R50000	Less than R 25 000	0.17	0.07	0.04	0.01	0.33
		≥ R 50 000	-0.14	0.06	0.10	-0.29	0.02
	≥R50000	Less than R 25 000	0.31	0.07	0.00	0.14	0.47
		≥ R 25 000 but < R 50 000	0.14	0.06	0.10	-0.02	0.29
On-Premise F1: Proficiency	<R25000	≥ R 25 000 but < R 50 000	-0.20	0.06	0.01	-0.35	-0.05
		≥ R 50 000	-0.35	0.06	0.00	-0.51	-0.20
	≥R25000 but <R50000	Less than R 25 000	0.20	0.06	0.01	0.05	0.35
		≥ R 50 000	-0.15	0.06	0.04	-0.30	0.00
	≥R50000	Less than R 25 000	0.35	0.06	0.00	0.20	0.51
		≥ R 25 000 but < R 50 000	0.15	0.06	0.04	0.00	0.30
On-Premise F2: Apprehension	<R25000	≥ R 25 000 but < R 50 000	-0.06	0.06	0.59	-0.20	0.08
		≥ R 50 000	0.11	0.06	0.18	-0.03	0.26
	≥R25000 but <R50000	Less than R 25 000	0.06	0.06	0.59	-0.08	0.20
		≥ R 50 000	0.17	0.06	0.01	0.03	0.31
	≥R50000	Less than R 25 000	-0.11	0.06	0.18	-0.26	0.03
		≥ R 25 000 but < R 50 000	-0.17	0.06	0.01	-0.31	-0.03
On-Premise F3: Social Outcome	<R25000	≥ R 25 000 but < R 50 000	-0.19	0.08	0.06	-0.39	0.00
		≥ R 50 000	-0.30	0.08	0.00	-0.50	-0.10
	≥R25000 but <R50000	Less than R 25 000	0.19	0.08	0.06	0.00	0.39
		≥ R 50 000	-0.11	0.08	0.38	-0.30	0.08
	≥R50000	Less than R 25 000	0.30	0.08	0.00	0.10	0.50
		≥ R 25 000 but < R 50 000	0.11	0.08	0.38	-0.08	0.30

Values in red indicate the mean difference is significant at p≤0.05 level. Values in blue indicate the mean difference is significant at p≤0.10 level.

5.5.4.4 Population group differences (Sub-objective 2.1.4 and 2.2.4)

Possible significant differences between different population groups' WCSC were detected by way of ANOVA (Table 5.41), that was followed by a post hoc Scheffe test (Table 5.42). Significant population differences were revealed within two dimensions of WCSC. Significant differences in different population groups' WCSC at the different locations were:

- With respect to **Off-premise locations**, the **Coaxing Knowledge** of white wine consumers ($M_{Off.}$ = 3.75) WCSC is significantly higher than that of black wine consumers ($M_{Off.}$ = 3.45; p<0.00) as well as coloured wine consumers ($M_{Off.}$ = 3.42; p=0.04), although the coaxing knowledge of all the population groups was above average.

- With respect to **On-premise locations,** the **Proficiency** of white wine consumers ($M_{On.}$ = 3.75) is significantly higher (p<0.00) compared to black wine consumers ($M_{On.}$ = 3.41), although both population groups' expertise to select wine is above average.

Findings indicate that the objective wine knowledge of white consumers is higher compared to other population groups. In contrast, black consumers possessed more subjective knowledge than other population groups. As a result, one would have expected black consumers to possess more WCSC but this was not the case.

TABLE 5.41: POPULATION GROUP DIFFERENCES OF WCSC IN DIFFERENT SALES CONTEXTS

		Off-Premise			On-Premise		
Population group		**F1: Decision Confidence**	**F2: Apprehension**	**F3: Coaxing Knowledge**	**F1: Proficiency**	**F2: Apprehension**	**F3: Social Outcome**
Black	**Mean**	3.27	2.21	3.45	3.41	2.07	3.17
n = 82	**SD**	1.00	0.67	0.96	0.98	0.73	1.11
Coloured	**Mean**	3.21	2.02	3.42	3.52	1.99	3.21
n = 42	**SD**	0.94	0.69	0.96	0.86	0.72	1.01
Other	**Mean**	3.14	2.12	3.55	3.50	2.05	2.97
n = 30	**SD**	0.92	0.58	0.96	0.90	0.71	0.94
White	**Mean**	3.41	2.11	3.75	3.75	2.07	3.12
n = 536	**SD**	0.65	0.54	0.61	0.57	0.58	0.80
Total	**Mean**	**3.37**	**2.12**	**3.69**	**3.68**	**2.07**	**3.12**
N = 690	**SD**	**0.73**	**0.57**	**0.71**	**0.68**	**0.62**	**0.86**
ANOVA Sig.		0.05	0.30	0.00	0.00	0.85	0.62

Values in red indicate significant differences at p≤0.05.

TABLE 5.42: POST HOC SCHEFFE OUTCOMES FOR POPULATION GROUP DIFFERENCES

Sales Contexts	Population Groups		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Off-Premise F3: Coaxing Knowledge	Black	Coloured	0.02	0.13	1.00	-0.35	0.40
		Indian / Other	-0.10	0.15	0.92	-0.52	0.32
		White	-0.31	0.08	0.00	-0.54	-0.07
	Coloured	Black	-0.02	0.13	1.00	-0.40	0.35
		Indian / Other	-0.13	0.17	0.90	-0.60	0.34
		White	-0.33	0.11	0.04	-0.64	-0.01
	Indian / Other	Black	0.10	0.15	0.92	-0.32	0.52
		Coloured	0.13	0.17	0.90	-0.34	0.60
		White	-0.20	0.13	0.51	-0.57	0.17
	White	Black	0.31	0.08	0.00	0.07	0.54
		Coloured	0.33	0.11	0.04	0.01	0.64
		Indian / Other	0.20	0.13	0.51	-0.17	0.57
On-Premise F1: Proficiency	Black	Coloured	-0.11	0.13	0.85	-0.47	0.24
		Indian / Other	-0.09	0.14	0.93	-0.49	0.30
		White	-0.34	0.08	0.00	-0.57	-0.12
	Coloured	Black	0.11	0.13	0.85	-0.24	0.47
		Indian / Other	0.02	0.16	1.00	-0.43	0.47
		White	-0.23	0.11	0.20	-0.53	0.07
	Indian / Other	Black	0.09	0.14	0.93	-0.30	0.49
		Coloured	-0.02	0.16	1.00	-0.47	0.43
		White	-0.25	0.12	0.26	-0.60	0.10
	White	Black	0.34	0.08	0.00	0.12	0.57
		Coloured	0.23	0.11	0.20	-0.07	0.53
		Indian / Other	0.25	0.12	0.26	-0.10	0.60

Values in red indicate the mean difference is significant at $p \leq 0.05$ level.

5.5.4.5 Level of education differences

Wine consumers' self-confidence for on-premise and off-premise locations are presented in Table 5.43. Through ANOVA, significant differences were detected for both contexts as indicated in Table 5.44. Significant level of education differences were only found for **Off-premise locations**, for two dimensions of WCSC, namely:

- For the dimension **Apprehension** wine consumers with a post-graduate qualification, are significantly more confident (p=0.10; $M_{Off.}$ = 2.07) than consumers with an education level lower than Grade 12 ($M_{Off.}$ = 2.48; p<0.10). The lower educated consumers' confidence is average while the confidence level of those with a postgraduate qualification is above average.

- The **Coaxing Knowledge of:**

    - Wine consumers who possess a degree ($M_{Off.}$ = 3.72) is significantly higher (p=0.05) than the lowest level of education group (<Grade 12) ($M_{Off.}$ = 3.15) although the coaxing confidence level of both is above average.

- Wine consumers who possess a post-graduate qualification is significantly higher ($M_{Off.}$ = 3.70) compared to those with an education level lower than Grade 12 ($M_{Off.}$ = 3.15; p=0.07), although both's confidence levels are above average.

Barber *et al.* (2008a) found that 34% of their sample with an undergraduate degree were concerned about selecting the wrong wine, contributing to lack of confidence.

TABLE 5.43: LEVEL OF EDUCATION DIFFERENCES OF WINE CONSUMERS' SELF-CONFIDENCE IN DIFFERENT SALES CONTEXTS

Level of Education		Off-Premise			On-Premise		
		F1: Decision Confidence	F2: Apprehension	F3: Coaxing Knowledge	F1: Proficiency	F2: Apprehension	F3: Social Outcome
Lower than Grade 12 n = 13	**Mean**	3.15	2.48	3.15	3.27	2.39	3.05
	SD	0.81	0.48	0.86	0.90	0.63	0.80
Grade 12 n = 135	**Mean**	3.24	2.16	3.61	3.56	2.07	3.00
	SD	0.81	0.65	0.79	0.75	0.67	0.95
Degree n = 418	**Mean**	3.41	2.11	3.72	3.72	2.07	3.17
	SD	0.69	0.54	0.67	0.62	0.60	0.81
Postgraduate Qualification n = 120	**Mean**	3.40	2.07	3.70	3.73	2.03	3.10
	SD	0.78	0.55	0.72	0.73	0.61	0.95
Total n = 686	**Mean**	**3.37**	**2.12**	**3.68**	**3.68**	**2.07**	**3.12**
	SD	**0.73**	**0.57**	**0.71**	**0.68**	**0.62**	**0.86**
ANOVA Sig.		0.09	0.07	0.02	0.01	0.24	0.27

Values in red indicate significant differences at p≤0.05.

TABLE 5.44: POST HOC SCHEFFE OUTCOMES FOR WINE CONSUMERS' LEVEL OF EDUCATION DIFFERENCES

Sales Contexts	Level of Education		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Off-Premise F2: Apprehension	Lower than Grade 12	Grade 12	0.33	0.16	0.27	-0.14	0.79
		Degree	0.37	0.16	0.15	-0.08	0.81
		Postgraduate qualification	0.42	0.17	0.10	-0.05	0.88
	Grade 12	Lower than Grade 12	-0.33	0.16	0.27	-0.79	0.14
		Degree	0.04	0.06	0.90	-0.12	0.20
		Postgraduate qualification	0.09	0.07	0.66	-0.11	0.29
	Degree	Lower than Grade 12	-0.37	0.16	0.15	-0.81	0.08
		Grade 12	-0.04	0.06	0.90	-0.20	0.12
		Postgraduate qualification	0.05	0.06	0.88	-0.12	0.21
	Postgraduate qualification	Lower than Grade 12	-0.42	0.17	0.10	-0.88	0.05
		Grade 12	-0.09	0.07	0.66	-0.29	0.11
		Degree	-0.05	0.06	0.88	-0.21	0.12
Off-Premise F3: Coaxing Knowledge	Lower than Grade 12	Grade 12	-0.45	0.21	0.18	-1.03	0.12
		Degree	-0.57	0.20	0.05	-1.12	-0.01
		Postgraduate qualification	-0.55	0.21	0.07	-1.13	0.03
	Grade 12	Lower than Grade 12	0.45	0.21	0.18	-0.12	1.03
		Degree	-0.11	0.07	0.47	-0.31	0.09
		Postgraduate qualification	-0.10	0.09	0.76	-0.35	0.15
	Degree	Lower than Grade 12	0.57	0.20	0.05	0.01	1.12
		Grade 12	0.11	0.07	0.47	-0.09	0.31
		Postgraduate qualification	0.01	0.07	1.00	-0.19	0.22
	Postgraduate qualification	Lower than Grade 12	0.55	0.21	0.07	-0.03	1.13
		Grade 12	0.10	0.09	0.76	-0.15	0.35
		Degree	-0.01	0.07	1.00	-0.22	0.19

Values in red indicate the mean difference is significant at $p \leq 0.05$ level. Values in blue indicate the mean difference is significant at $p \leq 0.10$ level.

5.5.4.6 Geographic area of residence differences

The ANOVA results for wine consumers' self-confidence depending on their geographic area of residence are presented in Table 5.45. Wine consumers across all provinces scored above average for WCSC for all the dimensions of the construct in both contexts. Wine consumers residing in the Western Cape and KwaZulu-Natal (KZN) obtained the highest WCSC scores although not significantly different from the other provinces ($p > 0.05$).

Similar to the knowledge section, one would expect wine consumers from the Western Cape to possess more WCSC as they are located closer to wineries that provide easy access to wine experiences and learning opportunities (Johnson and Bruwer, 2007). More in-depth research regarding this result is needed in future studies.

Since there were no significant differences between wine consumers from different provinces' WCSC at a 5% significance level, one can conclude that geographic location is not a good indicator or predictor of wine consumers' WCSC.

TABLE 5.45: GEOGRAPHIC LOCATION DIFFERENCES IN CONSUMERS' WCSC IN DIFFERENT SALES CONTEXTS

Area of Residence		Off-Premise			On-Premise		
		F1: Decision Confidence	F2: Apprehension	F3: Coaxing Knowledge	F1: Proficiency	F2: Apprehension	F3: Social Outcome
Gauteng n = 344	**Mean**	3.37	2.11	3.68	3.68	2.04	3.10
	SD	0.72	0.55	0.72	0.68	0.60	0.87
KZN n = 61	**Mean**	3.40	2.07	3.74	3.71	2.07	3.20
	SD	0.80	0.67	0.76	0.73	0.70	0.85
Western Cape n = 169	**Mean**	3.46	2.09	3.76	3.78	2.06	3.23
	SD	0.70	0.58	0.61	0.56	0.63	0.81
Other n = 95	**Mean**	3.24	2.23	3.61	3.55	2.16	3.02
	SD	0.78	0.55	0.75	0.75	0.60	0.90
Total N = 669	**Mean**	**3.38**	**2.12**	**3.69**	**3.69**	**2.07**	**3.13**
	SD	**0.73**	**0.57**	**0.70**	**0.67**	**0.62**	**0.86**

5.5.4.7 Wine qualification influences on WCSC

ANOVA results for wine consumers' WCSC acknowledging wine qualifications are presented in Table 5.46. The majority of the wine consumers' WCSC was above average with only a few exceptions. Significant differences were detected for all the factors that were further investigated with the post hoc Scheffe test (Table 5.47).

Significant differences formed the same pattern for all the dimensions of WCSC, with significant lower scores for wine consumers who do not have a wine qualification and those that are self-taught about wine or possess a formal wine qualification. Differences between wine consumers who are self-taught about wine and those who possess a formal wine qualification are not statistically significant ($p>0.05$).

Concerning **Off-premise** locations:

- The **Decision Confidence** of wine consumers that do not have a wine qualification ($M_{Off.} = 3.09$) is significantly lower than that of wine consumers who are self-taught in wine ($M_{Off.} = 3.72$; $p<0.00$), as well as consumers who possess a formal wine qualification ($M_{Off.} = 3.84$; $p<0.00$).
- The **Apprehension (anxiety)** of wine consumers that do not have a wine qualification ($M_{Off.} = 2.21$) is significantly higher compared to wine consumers who are self-taught in wine ($M_{Off.} = 2.02$; $p<0.00$), as well as consumers who possess a formal wine qualification ($M_{Off.} = 1.92$; $p<0.00$). Wine consumers who possess a wine qualification of some kind or who are self-taught in wine are significantly less anxious and more able to assert themselves in the sales context.

- The **Coaxing Knowledge** of wine consumers who do not have a wine qualification ($M_{Off.}$ = 3.52) is significantly lower than wine consumers who are self-taught in wine ($M_{Off.}$ = 3.91; p<0.00) or who possess a formal wine qualification ($M_{Off.}$ = 3.87; p<0.00).

Concerning **On-premise** locations:

- The **Proficiency** of wine consumers that do not have a wine qualification ($M_{On.}$ = 3.47) is significantly lower than wine consumers who are self-taught in wine ($M_{On.}$ = 3.96; p<0.00) or who possess a formal wine qualification ($M_{On.}$ = 3.95; p<0.00) also indicating that the proficiency (skills) confidence of those in possession of wine knowledge, whether formal or non-formal, is above average to high.

- The **Apprehension (anxiety)** of wine consumers that do not have a wine qualification ($M_{On.}$ = 2.17) are significantly higher than wine consumers who are self-taught in wine ($M_{On.}$ = 1.94; p<0.00) as well as consumers who possess a formal wine qualification ($M_{On.}$ = 1.88; p<0.00). Having a qualification or being self-taught, reduces wine consumers' anxiety significantly and increases their confidence to above average levels.

- The **Social Outcomes** associated with wine consumption for those who do not have a wine qualification ($M_{On.}$ = 2.82) seem significantly less prevalent for wine consumers who are self-taught in wine ($M_{On.}$ = 3.49; p<0.00) as well as those with a formal wine qualification ($M_{On.}$ = 3.68; p<0.00), indicating that wine knowledge in which ever format, enhances wine consumers' confidence when choosing amidst possible social implications.

TABLE 5.46: WINE QUALIFICATION DIFFERENCES OF CONSUMERS' CSC IN DIFFERENT SALES CONTEXTS

Wine qualification		Off-Premise			On-Premise		
		F1: Decision Confidence	F2: Apprehension	F3: Coaxing Knowledge	F1: Proficiency	F2: Apprehension	F3: Social Outcome
I do not have a wine qualification n = 392	**Mean**	3.09	2.21	3.52	3.47	2.17	2.82
	SD	0.77	0.58	0.78	0.75	0.64	0.87
Self-taught about wine n = 244	**Mean**	3.72	2.02	3.91	3.96	1.94	3.49
	SD	0.46	0.54	0.50	0.40	0.56	0.65
Formal wine qualification n = 54	**Mean**	3.84	1.92	3.87	3.95	1.88	3.68
	SD	0.56	0.48	0.67	0.55	0.52	0.70
Total N = 690	**Mean**	**3.37**	**2.12**	**3.69**	**3.68**	**2.07**	**3.12**
	SD	**0.73**	**0.57**	**0.71**	**0.68**	**0.62**	**0.86**
ANOVA Sig.		0.00	0.00	0.00	0.00	0.00	0.00

Values in red indicate significant differences at p≤0.05.

Significant differences were evident for all the dimensions of WCSC, indicating that consumers with a formal wine qualification and those who are self-taught in wine are significantly more confident when choosing

wine, irrespective of the context. This confirms the importance of **Information Acquisition** (e.g. reading wine books and magazines) (Charters and Ali-Knight, 2000), as well as sage experience on WCSC. Therefore, wine consumers' wine qualification status is a useful and significant predictor of wine consumers' self-confidence when selecting and purchasing wine, irrespective of the sales context.

TABLE 5.47: POST HOC SCHEFFE OUTCOMES OF WCSC RELATED TO WINE QUALIFICATION STATUS

Sales Contexts	Wine Qualification		Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Off-Premise F1: Decision Confidence	Do not have a wine qualification	Self-taught about wine	-0.62	0.05	0.00	-0.76	-0.49
		Formal wine qualification	-0.75	0.10	0.00	-0.98	-0.51
	Self-taught about wine	Do not have a wine qualification	0.62	0.05	0.00	0.49	0.76
		Formal wine qualification	-0.12	0.10	0.48	-0.36	0.12
	Formal wine qualification	Do not have a wine qualification	0.75	0.10	0.00	0.51	0.98
		Self-taught about wine	0.12	0.10	0.48	-0.12	0.36
Off-Premise F2: Apprehension	Do not have a wine qualification	Self-taught about wine	0.19	0.05	0.00	0.08	0.31
		Formal wine qualification	0.30	0.08	0.00	0.10	0.49
	Self-taught about wine	Do not have a wine qualification	-0.19	0.05	0.00	-0.31	-0.08
		Formal wine qualification	0.10	0.08	0.48	-0.10	0.31
	Formal wine qualification	Do not have a wine qualification	-0.30	0.08	0.00	-0.49	-0.10
		Self-taught about wine	-0.10	0.08	0.48	-0.31	0.10
Off-Premise F3: Coaxing Knowledge	Do not have a wine qualification	Self-taught about wine	-0.39	0.06	0.00	-0.52	-0.25
		Formal wine qualification	-0.34	0.10	0.00	-0.59	-0.10
	Self-taught about wine	Do not have a wine qualification	0.39	0.06	0.00	0.25	0.52
		Formal wine qualification	0.04	0.10	0.92	-0.21	0.30
	Formal wine qualification	Do not have a wine qualification	0.34	0.10	0.00	0.10	0.59
		Self-taught about wine	-0.04	0.10	0.92	-0.30	0.21
On-Premise F1: Proficiency	Do not have a wine qualification	Self-taught about wine	-0.49	0.05	0.00	-0.62	-0.36
		Formal wine qualification	-0.47	0.09	0.00	-0.70	-0.25
	Self-taught about wine	Do not have a wine qualification	0.49	0.05	0.00	0.36	0.62
		Formal wine qualification	0.02	0.10	0.99	-0.22	0.25
	Formal wine qualification	Do not have a wine qualification	0.47	0.09	0.00	0.25	0.70
		Self-taught about wine	-0.02	0.10	0.99	-0.25	0.22
On-Premise F2: Apprehension	Do not have a wine qualification	Self-taught about wine	0.24	0.05	0.00	0.11	0.36
		Formal wine qualification	0.29	0.09	0.00	0.08	0.51
	Self-taught about wine	Do not have a wine qualification	-0.24	0.05	0.00	-0.36	-0.11
		Formal wine qualification	0.06	0.09	0.82	-0.17	0.28
	Formal wine qualification	Do not have a wine qualification	-0.29	0.09	0.00	-0.51	-0.08
		Self-taught about wine	-0.06	0.09	0.82	-0.28	0.17
On-Premise F3: Social Outcome	Do not have a wine qualification	Self-taught about wine	-0.68	0.06	0.00	-0.83	-0.52
		Formal wine qualification	-0.86	0.11	0.00	-1.14	-0.58
	Self-taught about wine	Do not have a wine qualification	0.68	0.06	0.00	0.52	0.83
		Formal wine qualification	-0.19	0.12	0.29	-0.48	0.10
	Formal wine qualification	Do not have a wine qualification	0.86	0.11	0.00	0.58	1.14
		Self-taught about wine	0.19	0.12	0.29	-0.10	0.48

Values in red indicate the mean difference is significant ($p \leq 0.05$).

5.5.5 Concluding remarks (Objective 2)

The sample's self-reported wine knowledge (subjective wine knowledge) was found to be above average. Therefore, it was expected that the sample would have average to above average WCSC (Veale, 2008) and was indeed true for all the dimensions of WCSC in both sales contexts.

The demographic groups with the highest WCSC were: males, the older wine consumers, thus the GenXers, Baby Boomers and the Greatest Generation consumers, high-income consumers, as well as white consumers. Population group was not found to be a useful predictor of WCSC, while gender, age, household income, area of residence and the possession of a wine qualification or self-tuition in wine seemed to be good predictors of wine consumers' WCSC when selecting wine, irrespective of the context.

5.6 SUMMARY

Wine consumers' objective wine knowledge was investigated by means of a basic wine knowledge test. The respondents were also asked to indicate how knowledgeable they are about wine compared to others they know to determine their subjective knowledge. T-tests, ANOVA and post hoc Scheffe tests were used to determine possible significant differences in consumers' wine knowledge, comparing wine consumers with different demographic characteristics. An adapted version of the WSCS of Olsen *et al.* (2003) was used to investigate wine consumers' self-confidence when selecting wine at off-premise and on-premise locations. Exploratory factor analysis distinguished three factors for each sales context. T-tests, ANOVA and post hoc Scheffe tests were used to distinguish statistically significant differences in the WCSC of wine consumers with diverse characteristics. A non-probability sampling was used and demographic sub-groups are not representative of the larger population of SA, generalisations can unfortunately not be made in terms of the South African population. In terms of this study, significant differences in gender, age group, population group, income level, educational level as well as geographic location of residence were found, indicating the WCSC is influenced by consumers' demographic characteristics. Prolonged experience with wine (over time as one grows older and with increased income) apparently enhances a consumer's WCSC, probably due to increased exposure and experience with wine. Further evidence that knowledge about wine, whether self-taught or acquired by means of formal training, enhances wine consumers' WCSC in term of all of the dimensions of the phenomenon, irrespective of the context of consumption. Evidence that a consumer's location nearby or in a wine district enhances WCSC could not be found. It is possible that exposure through marketing is good enough to diminish the relevance of a consumer's area of residence in terms of WSCS, but further research is necessary to make conclusive findings in this regard.

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CHAPTER 6

Conclusions

This concluding chapter summarises the previous five chapters and reiterates the key findings of the study and their implications. Recommendations regarding further research avenues are also provided.

"It always seems impossible until it's done." – Nelson Mandela

6.1 INTRODUCTION

This study was executed to address the two principle aims of the study, i.e. to investigate and describe South African wine consumers' knowledge of wine, and consumers' self-confidence (WCSC) when selecting wine in different sales contexts. Possible relationships between wine consumers' knowledge of wine and their WCSC in terms of their demographic characteristics, namely gender, age, household income and population group were also investigated.

6.2 THE FINDINGS OF THE STUDY

The research process yielded the following findings:

6.2.1 To investigate and describe wine consumers' knowledge of wine (Objective 1)

South African wine consumers' knowledge of wine, i.e. objective and subjective knowledge were investigated. Four demographic characteristics (age, gender, monthly household income and population group) and their relationship to the two types of knowledge were also investigated to identify what wine consumers think they know about wine (subjective knowledge) as well as their factual knowledge (objective knowledge) of wine.

6.2.1.1 Objective knowledge of wine (Sub-objective 1.1)

The respondents' objective wine knowledge was investigated through ten basic knowledge questions. Overall, the respondents' objective knowledge was above average (>50%). The mean value of correct responses was 6.89 (Max = 10) with a fairly large standard deviation of 2.40, suggesting fluctuation in the answers. The minimum and maximum scores scored were 0 and 10, respectively. The questions answered

correctly by the majority, were: “White wine should be served chilled” (n=607, 87.97%) and “Shiraz is a white wine” (n=589, 85.36%). The most incorrect answers were reported on: “Tannins are normally present in white wines” (n=393, 56.96%), “The purpose of tasting wine at a restaurant is to verify that it is the correct wine” (n=388, 56.23%) and “Expensive wines are exclusively closed with cork wine closures” (n=347, 50.29%).

6.2.1.2 Subjective knowledge of wine (Sub-objective 1.2)

Only about a third of the respondents considered themselves to be novices concerning wine (n=228, 33.04%). Most of the respondents indicated that their wine knowledge is moderate compared to people they know (n=328, 47.54%). About 20% of the respondents either indicated that their wine knowledge is substantial or regarded themselves as experts concerning wine characteristics (n=134, 19.42%). This is confirmed by the high number of respondents who indicated a pertinent interested in wine (n=564, 81.74%) and the 43.18% of the sample that either possessed a formal wine qualification or were self-taught about wine (n=298).

When asked about their wine knowledge compared to others they know, regarding specific aspects of wine, most of the respondents regarded themselves as knowledgeable on how to serve wine (n=415, 60.14%) and which wines to choose (n=421, 61.01%). More than half of the respondents perceived themselves to be knowledgeable on wine quality (n=371, 53.77%). However, less than half of the respondents self-reported that they are more knowledgeable than others they know on wine characteristics (n=322, 46.67%) and the pairing of wine with food (n=308, 44.64%).

Demographic differences:

The findings of wine consumers’ knowledge of wine and their demographic characteristics are summarised in Table 6.1.

It was concluded that **gender** and **monthly household income** are substantial predictors of wine consumers’ knowledge of wine. Overall, the **objective wine knowledge** of males, older wine consumers, wine consumers with higher incomes and white wine consumers was found to be significantly higher compared to their counterparts. Also, men and higher income wine consumers’ subjective wine knowledge was significantly higher compared to their counterparts. **Age** and **population group** seem good predictors of wine consumers’ objective knowledge, although not for their subjective wine knowledge. Nonetheless, the wine knowledge of all wine consumers who participated in this study, was average to above average, with the high-income group being the most knowledgeable about wine.

TABLE 6.1: OBJECTIVE 1 FINDINGS – WINE CONSUMERS' KNOWLEDGE OF WINE PER THEIR DEMOGRAPHIC CHARACTERISTICS

DEMOGRAPHIC CHARACTERISTIC	OBJECTIVE KNOWLEDGE (SUB-OBJECTIVE 1.1)	SUBJECTIVE KNOWLEDGE (SUB-OBJECTIVE 1.2)
Gender [Obj. 1.1.1; 1.2.1]	▪ Males ($M_{Obj.}$ = 7.31) and females ($M_{Obj.}$ = 6.68; p=0.01).	▪ Males ($M_{Subj.}$ = 6.67) and females ($M_{Subj.}$ = 6.26; p < 0.00).
Age [Obj. 1.1.2; 1.2.2]	▪ Baby Boomers ($M_{Obj.}$ = 7.35) and Millennials ($M_{Obj.}$ = 6.45; p < 0.00). ▪ Baby Boomers ($M_{Obj.}$ = 7.35) and GenXers ($M_{Obj.}$ = 6.79; p=0.05).	
Monthly Household Income [Obj. 1.1.3; 1.2.3]	▪ High ($M_{Obj.}$ = 7.97), and Middle ($M_{Obj.}$ = 7.03; p<0.00). ▪ High ($M_{Obj.}$ = 7.97) and Low-Middle ($M_{Obj.}$ = 6.01; p<0.00). ▪ Middle ($M_{Obj.}$ = 7.03) and Low-Middle ($M_{Obj.}$ = 6.01; p<0.00).	▪ High ($M_{Subj.}$ = 6.97), and Middle ($M_{Subj.}$ = 6.52; p=0.04). ▪ High ($M_{Subj.}$ = 6.97) and Low ($M_{Subj.}$ = 6.13; p<0.00).
Population Group [Obj. 1.1.4; 1.2.4]	▪ White ($M_{Obj.}$ = 7.48) and coloured respondents ($M_{Obj.}$ = 6.56; p=0.05). ▪ White ($M_{Obj.}$ = 7.48) and Indian/other respondents ($M_{Obj.}$ = 6.26; p=0.02). ▪ White ($M_{Obj.}$ = 7.48) and black respondents ($M_{Obj.}$ = 4.62; p<0.00). ▪ Coloured ($M_{Obj.}$ = 6.56) and black respondents ($M_{Obj.}$ = 4.62; p<0.00). ▪ Indian/other ($M_{Obj.}$ = 6.26) and black respondents ($M_{Obj.}$ = 4.62; p<0.00).	

Key: $M_{Obj.}$: objective wine knowledge mean; $M_{Subj.}$: subjective wine knowledge mean; Obj.: research objective. Low-Middle income = <R25 000; Middle income = ≥R25 000 but <R50 000; High income = ≥R50 000.

6.2.2 To investigate and describe wine consumers' WCSC when selecting wine in different sales contexts (Objective 2)

6.2.2.1 Information sources used

Firstly, findings pertaining to the **information sources used by wine consumers** when selecting wine at different sales contexts revealed **own/ personal experience** as the most important information source, preferred by four from five respondents off-premise (n=555, 80.43%), also being the most import at on-premise locations (n=587, 85.07%). **Friends or family members' recommendations** were regarded as important or very important by two from three respondents at off-premise locations (n=460, 66.67%) although less important at on-premise locations (n=442, 64.06%). **Printed information** (n=219, 31.74%) and recommendations from a clerk or salesperson (n=192, 27.83%) were less valuable information sources to wine consumers at off-premise locations although valuable at on-premise locations (n=151, 21.88%; n=277, 40.14% respectively). The least important information sources for wine consumers at off-premise locations,

were **advertisements and promotional material** (n=346, 50.15%), **internet searches** (n=374, 54.20%) and **television or radio infomercials** (n=441, 63.91%). Similar results were obtained for on-premise locations.

6.2.2.2 WCSC in different contexts

The **Wine Self-Confidence Scale** (WSCS) from Olsen *et al.* (2003) was adapted to suit wine selection at the two sales contexts (off-premise and on-premise locations) investigated in this study. The WSCS was not used in the South African context before. For these reasons, three factors/ dimensions (for each sales context) rather than six as in the original scale, emerged through exploratory factor analysis (EFA). The three factors identified by EFA for both sales contexts were aptly named according to their respective scale items that loaded onto the factors. The factors for off-premise locations are Factor 1: Decision Confidence, Factor 2: Apprehension, Factor 3: Coaxing Knowledge. The factors for on-premise locations are Factor 1: Proficiency, Factor 2: Apprehension, Factor 3: Social Outcome.

Factor 1, for both sales contexts focussed primarily on the perceived ability of the wine consumer to select a wine by searching for information and to narrow down the choice alternatives to what the wine consumer wants. Factor 1 Decision Confidence (off-premise locations) comprised of all the Social outcome and Information acquisition scale items from the original WSCS. Two scale items of the original Consideration set formation also loaded onto this factor. Factor 1 Proficiency (on-premise locations) comprised all the scale items of Persuasion knowledge, Consideration set formation and Information acquisition from the original scale.

Factor 2 comprised the same scale items for both sales contexts and primarily focusses on wine consumers selecting a bottle of wine that suits their own needs (Personal outcomes) as well as their ability to be assertive in the purchasing context (Marketplace interfaces).

Factor 3 differed for the two sales contexts. At off-premise locations, the ability to discern persuasive marketing tactics (Coaxing Knowledge) and ability to reduce choice alternatives, in accordance with the wine the consumer's needs (Consideration set formation) were more important. Conversely, at on-premise locations, the Social Outcomes of selecting a wine were more important, probably because this choice is often made in the presence of friends, family or colleagues and their approval or disapproval of the wine can directly reflect on the decision-maker.

For **off-premise locations,** the means for each of the factors were calculated ($M_{Maximum}$ = 5) and revealed that for:

- Factor/ Dimension 1, **Decision Confidence**, wine consumers were **fairly confident** in their ability to gather adequate information before or during a wine purchase decision. They are also fairly confident in their ability to select a wine that will meet the social outcomes they desire ($M_{Off.}$ = 3.34).
- Factor/ Dimension 2, **Apprehension**, wine consumers were **above average** concerning **confidence** to choose the wine that will satisfy their needs in the purchase context ($M_{Off.}$ = 2.11)(scores interpreted inversely for this factor).
- Factor/ Dimension 3, **Coaxing Knowledge**, wine consumers were **fairly confident** in their ability to evaluate external persuasive marketing tactics and to reduce the number of choice alternatives to select the wine they want ($M_{Off.}$ = 3.69).

For **on-premise locations,** the means for each of the factors were calculated ($M_{Maximum}$ = 5) and revealed that for:

- Factor/ Dimension 1, **Proficiency**, wine consumers were **fairly confident** in their ability to collect adequate information before or during a wine purchase decision, to manage persuasive marketing tactics and to reduce the number of choice alternatives to select the wine they want ($M_{On.}$ = 3.68).

- Factor/ Dimension 2, **Apprehension**, that reflects on possible anxiety, wine consumers were **above average confident** in their ability to choose the wine that will satisfy their needs and to assert themselves in the purchase context ($M_{On.}$ = 2.08). (Scores interpreted inversely for this factor).

- Factor/ Dimension 3, **Social Outcomes**, wine consumers were **fairly confident** in their ability to select a wine that will meet the social outcomes they desire ($M_{On.}$ = 3.12).

The findings suggest that overall, South African wine consumers are fairly / above average confident in their abilities to select a wine that will meet their needs or other's needs/ expectations. Also, the main difference between the sales contexts relate to Factor 3 (Coaxing Knowledge) at off-premise locations, when wine consumers are presented with persuasive marketing tactics and the large (overwhelming) variety of wine available on the shelves. Their ability to see through said marketing tactics and the ability to reduce the number of choice alternatives to the wines they want, are important. The methods employed by South African wine consumers to do so could be further investigated. Furthermore, Social outcomes are in fact very important to wine consumers when selecting a wine at on-premise contexts such as a restaurant, bar and hotel. Therefore, these foodservice operations should develop strategies to simplify the decision for wine consumers.

6.2.2.3 Demographic differences in WCSC

From the literature, it was clear that demographic characteristics such as gender and age are important in how wine consumers select wine (Atkin *et al.*, 2007; Barber, 2009; Barber *et al.*, 2006; Barber *et al.*, 2009a; Chang *et al.*, 2016; Forbes *et al.*, 2010; Kim and Jang, 2014; Kolyesnikova, Dodd and Wilcox, 2009; Nicolson, 1990). Therefore, four demographic characteristics (gender, age, income and population group) and their possible relationship with WCSC were investigated. The findings of wine consumers' self-confidence when selecting a wine and their demographic characteristics are summarised in Table 6.2.

TABLE 6.2: OBJECTIVE 2 FINDINGS – WCSC† RELATED TO CONSUMERS' DEMOGRAPHIC CHARACTERSITICS

DEMOGRAPHIC CHARACTERISTIC	OFF-PREMISE LOCATIONS (SUB-OBJECTIVE 2.1)	ON-PREMISE LOCATIONS (SUB-OBJECTIVE 2.2)
Gender [Obj. 2.1.1; 2.2.1]	▪ F1: Males ($M_{Off.}$ = 3.42) and females ($M_{Off.}$ = 3.30; p=0.03). ▪ F2: Males ($M_{Off.}$ = 2.08) and females ($M_{Off.}$ = 2.18; p=0.03).* ▪ F3: Males ($M_{Off.}$ = 3.75) and females ($M_{Off.}$ = 3.60; p=0.01).	▪ F1: Males ($M_{On.}$ = 3.75) and females ($M_{On.}$ = 3.59; p<0.00). ▪ F2: Males ($M_{On.}$ = 2.02) and females ($M_{On.}$ = 2.13; p=0.02).*
Age [Obj. 2.1.2; 2.2.2]	▪ F2: Baby Boomers ($M_{Off.}$ = 2.06) and Millennials ($M_{Off.}$ = 2.28; p=0.01).*	▪ F1: Millennials ($M_{On.}$ = 3.49) and Baby Boomers ($M_{On.}$ = 3.74; p=0.01). ▪ F1: Millennials ($M_{On.}$ = 3.49) and Greatest Generation ($M_{On.}$ = 3.78; p=0.04). ▪ F2: Millennials ($M_{On.}$ = 2.23) and Baby Boomers ($M_{On.}$ = 1.98; p<0.00).*
Monthly Household Income [Obj. 2.1.3; 2.2.3]	▪ F1: High ($M_{Off.}$ = 3.54) and Low-Middle ($M_{Off.}$ = 3.21; p<0.00) ▪ F2: High ($M_{Off.}$ = 2.03) and Middle ($M_{Off.}$ = 2.18; p=0.01).* ▪ F3: Low-Middle ($M_{Off.}$ = 3.52) and Middle ($M_{Off.}$ = 3.69; p=0.04). ▪ F3: Low-Middle ($M_{Off.}$ = 3.52) and High ($M_{Off.}$ = 3.83; p<0.00).	▪ F1: High ($M_{On.}$ = 3.85) and Middle ($M_{On.}$ = 3.69; p=0.04). ▪ F1: High ($M_{On.}$ = 3.85) and Low-Middle ($M_{On.}$ = 3.49; p<0.00). ▪ F1: Low-Middle ($M_{On.}$ = 3.49) and Middle ($M_{On.}$ = 3.69; p=0.01). ▪ F2: Middle ($M_{On.}$ = 2.14) and High ($M_{On.}$ = 1.97; p=0.01).* ▪ F3: High ($M_{On.}$ = 3.26) and Low-Middle ($M_{On.}$ = 2.96; p<0.00).
Population Group [Obj. 2.1.4; 2.2.4]	▪ F3: White ($M_{Off.}$ = 3.75) and coloured respondents ($M_{Off.}$ = 3.42; p<0.00). ▪ F3: White ($M_{Off.}$ = 3.75) and black respondents ($M_{Off.}$ = 3.45; p=0.04).	▪ F1: White ($M_{On.}$ = 3.75) and black respondents ($M_{On.}$ = 3.42; p<0.00).

Key: †WCSC: Wine consumer self-confidence. Obj.: research objective; $M_{Off.}$: consumer self-confidence mean at off-premise locations; $M_{On.}$: consumer self-confidence mean at on-premise locations. Low-Middle income = <R25 000; Middle income = ≥R25 000 but <R50 000; High income = ≥R50 000. *Factor 2 reverse interpretation of the means.

Gender and **monthly household income** were identified as significant predictors of wine consumers' self-confidence when selecting wine in both sales contexts. Although age indicates experience, **age** was not found to be a good predictor of wine consumers' self-confidence at *off-premise* locations. Neither is **population group** a good predictor of wine consumers' WCSC at *on-premise locations*. Similar to the findings for

consumers' wine knowledge, **men, older wine consumers**, **more affluent** (*higher household income)* and **white** wine consumers possessed more WCSC than their respective counterparts at both sales contexts even though the WCSC of all wine consumers seem average to above average.

6.3 THE RESEARCH IN RETROSPECT

The study was designed in such a manner appropriate within the financial and time constraints of the researcher but also to maintain a high standard of ethics. No unexpected obstacles were encountered during the research process.

A thorough literature review including more than 250 reputable sources were used to ascertain the greatest need/ shortcoming in wine literature in the South African context. The literature review was used to design the measuring instrument and to adjust the WSCS. This ensured theoretical and construct validity. Perhaps an improvement on the questionnaire would have been to add questions regarding extrinsic cues (label information in particular). However, this study serves as a foundation to provide researchers with a better understanding of the knowledge and CSC of South African wine consumers.

Consulta Research (Pty) Limited ensured that sampling was conducted in a time-efficient and affordable manner. NRF funding provided the opportunity for professional sampling. Non-probability sampling methods (convenience and snowball sampling) were used and as such, the sample was not representative of the South African population. Consequently, no generalisations were possible concerning the larger population of SA.

Data analysis was conducted with the assistance of a professional statistician and Cronbach's Alpha were calculated to ensure reliability of data. After factor analysis (EFA) three factors emerged for each sales context as presented in Table 5.33 and Table 5.35, respectively. These factors differ from the original dimensions in the scale of Bearden *et al.* (2001) and Olsen *et al.* (2003) but due to changes in the number and wording of the scale items of the WSCS, these factors used in the present study may be more applicable. In addition, the unique characteristics of South African wine consumers may also have led to differences in the factors. These factors do, however, provide a sensible view of the WCSC of South African wine consumers when compared to the literature. Future research studies can build onto this research by conducting in-depth investigations albeit through questionnaires or focus groups, establishing the reasons behind South African wine consumers' self-confidence.

The Rational Choice Theory (RCT) seemed suitable for this study in the light of consumers' confidence to choose wine and their self-reliance when selecting wine. It has to be acknowledged that, with the overwhelming volume of wine choice alternatives available to consumers to choose from, they can never gain a complete scenario and may even be overwhelmed by the vast amount of available information prior

to making a wine selection. However, this study showed that on average, wine consumers can select the wines within their frame of reference and are hence not confused by the product array.

6.4 LIMITATIONS OF THE STUDY

Ethical and sound research methods were followed during the research process. However, some limitations of the research were inevitable.

Since convenience sampling was used, the respondents of this study had to be wine consumers that are members of Consulta Research (Pty) Limited or alternatively, individuals that could be nominated by friends, family members or peers whom are members of the panel of Consulta Research (Pty) Limited. In addition to the aforementioned limitation, only a sample of 690 South African wine consumers was obtained. Therefore, due to the small sample size and sampling method, caution was taken to make generalisations of South African wine consumers as a whole.

Black respondents comprised a small part of the collected sample (11.9%). As a result, generalisations regarding black wine consumers' wine knowledge and CSC when selecting wine cannot be made for the whole population group. Further research focussing on black South African wine consumers is needed to investigate their purchasing, consumption, wine knowledge and CSC when selecting wine. As black urban consumers' wine choices are influenced the most by social networks (Ndanga *et al.*, 2008); it is suggested that marketers use them as tools to attract, inform and educate black urban consumers about wine.

The sample criteria only allowed individuals that were 21 years and older at the time of data collection (September – October 2016), to participate in the study in order to increase the validity and reliability of the data collection procedure. Thus, further research of wine consumers in the age category of 18-21-year olds can be conducted to enhance knowledge of this market segment's wine purchasing and consumption behaviour as well as their wine knowledge, WCSC and wine drinking habits.

The demographic profile of this study did not include investigating marital status, couple dynamics (e.g. primary purchaser and primary consumer) or household size, which can provide a better understanding and overall picture of the South African wine consumer.

Furthermore, this study only gathered quantitative data. In future, a qualitative research approach can be followed to gain in-depth knowledge into the wine knowledge and WCSC of South African wine consumers. This will further improve the understanding of wine consumers' needs and wants by marketers, retailers and producers and how these needs and wants can be met.

Lastly, the validity of the objective knowledge test used in the measuring instrument is questionable. A basic objective test was constructed with examples from a few previous studies (Barber, 2008; Bruwer and Buller, 2012). However, the test was adapted for the South African context, i.e. the most probable exposure wine consumers had to wine in SA. Therefore, the wine consumers may have had more knowledge regarding South African wines and cultivars than for example French and Spanish wines and cultivars.

6.5 RECOMMENDATIONS FOR FUTURE RESEARCH

This research study serves as a basis of South African wine consumers' knowledge of wine and their CSC when selecting wine. However, numerous research areas that have received attention overseas are yet to be implemented and researched in the South African context. From the knowledge obtained during the research process of this study, these are key recommendations for further research into this field:

- This research study did not investigate which intrinsic and extrinsic attributes are used by South African wine consumers when selecting wine. Further research studies can focus on label design and how it aids in the external search effort (Atkin and Johnson, 2010; Barber and Almanza, 2007; Barber *et al.*, 2008a; Barber *et al.*, 2007b; Celhay and Remaud, 2016; Charters *et al.*, 1999; De Mello and De Borobia, 2008; Lunardo and Guerinet, 2007; Mueller and Lockshin, 2008; Mueller *et al.*, 2010a; Pereira, Hsu and Kundu, 2005; Reidick, 2003; Sáenz-Navajas, Campo, Sutan, Ballester and Valentin, 2013b; Shaw *et al.*, 1999; Tang *et al.*, 2015; Thomas and Pickering, 2003; Wolf, 2008). Future research can also assess the intrinsic and extrinsic cues or attributes of wine in relation to the consumer's demographic profile, wine knowledge and CSC following the methodology of Thomas and Pickering (2003).
- Several studies have investigated perceived risks when purchasing wine and the risk reducing strategies used by consumers to cope with the purchase decision (Aqueveque, 2006; Atkin and Thach, 2012; Bories *et al.*, 2014; Johnson and Bruwer, 2004; Lacey *et al.*, 2009; Locander and Hermann, 1979; Mitchell and Greatorex, 1988; Mitchell and Greatorex, 1989; Outreville and Desrochers, 2016). These studies can be used as a basis to investigate South African wine consumers' perceived risks and risk reducing strategies when purchasing wine.
- Future research can focus on marketing strategies and advertisements employed by marketers (especially those used in magazines) to reach the wine consumer, and wine consumers with different demographic profiles as conducted by Barber *et al.* (2008b); Hall (2016) and Vigar-Ellis *et al.* (2015).
- Population groups and their respective perception, consumption and purchases of wine can be investigated with the extension on how to market to different population groups.
- This study only investigated subjective wine knowledge and objective wine knowledge. Usage experience and the dimensions of expertise that grow from wine-related encounters can be investigated in future

research to determine the extent of South African wine consumers'wine wine knowledge when viewed as a combination of product familiarity and expertise (Alba and Hutchinson, 1987).

- Obtaining wine consumers from the black population group for this study posed quite a challenge as several candidates indicated that they do not consume wine. In order to learn more about this "untapped" market, focus groups with black consumers and wine consumers can be held to investigate their wine consumption and purchasing behaviour.
- PWC (2015) reported that in 2015 twenty million smart phones were active in SA from a population of 53 million. Therefore, the use of technology by the wine consumer is an emerging market that requires further exploration. Research on the support that wine apps can provide in keeping track of wine consumed, food pairing suggestions, and indicate ratings that wine have scored according to other wine enthusiasts, etc. Examples of current wine applications include Delectable, Vivino, Hello Vino, Vinous: Wine Reviews, SWE Wine and Spirits, Wine Ring and many more. Current studies available have been researched by Higgins *et al.* (2014); Pelet and Lecat (2014) and Fuentes Fernández, Vriesekoop and Urbano (2017).
- The preferences of South African wine consumers in terms of COO, grape variety/cultivar and red wine versus white wine can be investigated, similar to the study of Atkin *et al.* (2007).
- Household dynamics between partners in a household and how that affects wine purchasing behaviour can be investigated, similar to the study of Bruwer *et al.* (2005).
- The quality perception of wine by South African wine consumers as well as the price they are willing to spend on a bottle of wine for different occasions or consumption situations can be investigated.
- Lastly, the online wine order market is an emerging market. Some research studies have set out to investigate this market segment but is yet to be applied to the South African context (Bruwer and Wood, 2005; Li *et al.*, 2016).

6.6 IMPLICATIONS OF THE FINDINGS

The findings of this study can add value to the academic field and retail and wine industries as there is very limited literature available on South African wine consumers' knowledge of wine. The split of wine knowledge into objective and subjective knowledge is imperative as a wine consumer with low subjective knowledge may feel overwhelmed or uncertain to select a wine that would meet the expectations for him-/herself or others.

The original CSC-scale developed by Bearden *et al.* (2001) and adapted by Olsen *et al.* (2003) was revisited by McClung *et al.* (2015) in the Australian context. However, this scale has not been used in the South African context to date. Thus, this study allowed for the scale to be tested in the South African context. Furthermore,

the scale was adapted for the two sales contexts which was unique in this study (off-premise and on-premise locations) to investigate possible differences in purchasing behaviour of wine consumers.

Investigating the relationships between wine consumers' demographic characteristics (gender, age, income and population group) and their wine knowledge and WCSC further adds value to the academic field as it creates a foundation/ reference point for future research.

Radio and television infomercials are apparently not important to wine consumers when searching for information to assess wine choice alternatives. These findings will enable marketers to realise that success marketing strategies need to change and adapt with the times and it cannot be generic as wine consumers' knowledge and CSC differ. For example, the low number of black, Indian, coloured and other population group respondents are an indication that marketing to these consumer segments need to be different from that of the white population. Also, Millennials may not respond to radio and TV infomercials but may be more open to advertisements on social media, whereas older wine consumers may prefer to read about wine in wine magazines or food magazines. The information sources used by wine consumers when selecting wine are also valuable for retailers as it shows that current advertisements and promotional material are not (currently) important to wine consumers when selecting a wine. In addition, recommendations from salespersons or waiters are apparently not the "go to" information source for wine consumers. Therefore, promotional material on shelves should be re-evaluated to ensure that it provides the consumer with the correct information they require to mitigate the purchase decision. Trained salespersons and waiters are critical if wine consumers are going to perceive them as credible information sources. Retailers can also follow the strategies, whereby they dress the shelves in such a manner that the variety of wine is not overwhelming for the consumer, for example by increasing the number of shelf facings to retain consumers' visual attention (Chandon, Hutchinson, Bradlow and Young, 2009), by creating the idea of wine scarcity to increase uniqueness appeal (Van Herpen, Pieters and Zeelenberg, 2014) and by filtering the options available as to minimise the choice alternatives – a method employed by Woolworths for example (Robinson, 2016). Seghieri *et al.* (2007) suggest organising shelf space to target specific consumer segments. Even tough, overall wine consumers' wine knowledge and CSC were average or above average, there is still room for improvement. Wineries have the opportunity to educate their customers as to make them more "comfortable" with their wine choices (Hussain *et al.*, 2007). It is suggested that wine speciality stores and retail stores, with the assistance of the wine producers, organise wine tasting evenings and in-store wine tasting samples to educate wine consumers and to help the wine consumer assess the intrinsic qualities of the wine before he/she buys it.

The findings of the study can also benefit producers in the sense that they can re-evaluate their labels and promotional material to ensure that they reach the target markets they are hoping to reach. Furthermore,

they can work with retailers and wine critics to establish a system for labelling wine to indicate value-for-money wines, especially considering the strong influence of household income on wine knowledge and CSC.

Lastly, the hope is that this research will benefit the wine consumer by providing the industry and academics with an indication of wine consumers' wine knowledge and WCSC and thereby changing the marketing strategies and way in which wine is presented to the customer. Hopefully this will empower the wine consumer and reduce the uncertainty surrounding the wine purchase decision.

6.7 SUMMARY

The wine industry and marketers can benefit from the research and findings of this study as it provides them with valuable information regarding South African wine consumers' wine knowledge as well as their wine consumer self-confidence and the information sources used at different locations when selecting wine, and the frequency of purchases at different sales locations. Due to apparent differences among wine consumers with different demographic profiles in terms of their wine knowledge and WCSC, a generic approach to marketing is bound to fail. Marketers can work towards creating and implementing differentiated marketing strategies for the different groups of wine consumers.

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The author would like to give credit and show her gratitude to the following researchers for their knowledge, hard work and research that aided in inspiring, guiding, compilation and completion of this research study and dissertation.

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APPENDICES

APPENDIX A WINE KNOWLEDGE QUESTION EXAMPLES OF PREVIOUS STUDIES

OBJECTIVE KNOWLEDGE QUESTIONS:

AUTHOR(S)	OBJECTIVE KNOWLEDGE QUESTION EXAMPLES
Barber (2008)	*Chablis is:* A) A white grape, B) A region in Burgundy, C) Made in California, D) Cheap and not worth drinking *Sauterne is best served with which kind of food?* A) Grilled steak, B) Seafood, C) BBQ Chicken, D) Desserts *What country produces the largest volume of wine?* A) The United States, B) Spain, C) Italy, D) France *An island off the coast of Portugal is most associated with:* A) Sherry wine, B) Madeira wine, C) Porto wine, D) Rioja wine *Loire Valley is a wine region located where?* A) Australia, B) France, C) Germany, D) Washington State *Which of the following is not a red wine grape?* A) Pinot Noir, B) Shiraz, C) Zinfandel, D) Semillon *Chardonnay is what type of wine?* A) white wine, B) blush, C) Champagne, D) red wine *Which wine is not fortified?* A) port, B) champagne, C) sherry, D) vermouth
Frøst and Noble (2002)	*Which of the following grape varieties are used for red wines?* A) Cabernet Sauvignon, B) Riesling, C) Merlot, D) Pinot Noir, E) Chardonnay, F) Gewurztraminer *Which of the following areas are recognized as AVA (Approved Viticultural Area or American Viticultural Area)?* A) Napa Valley, B) Stag's Leap District, C) Sacramento Viticultural Area, D) Lodi Appellation, E) Santa Barbara *Which of the following grape varieties are used for the famous wines from Bordeaux (indicate all that apply)?* A) Pinot Noir, B) Gamay, C) Cabernet Sauvignon, D) Grenache, E) Sangiovese, F) Merlot *Which two of the following grape varieties are used for the famous wines from Burgundy?* A) Pinot noir, B) Gamay, C) Cabernet Sauvignon, D) Grenache, E) Chardonnay, F) Hermitage What variety is used to make white wine with the label Fumé Blanc? A) Chardonnay, B) Sauvignon Blanc, C) Cabernet Franc, D) Semillon, E) Pinot Blanc, F) Pinot Gris
Bruwer and Buller (2012)	*Chardonnay is…* A white grape variety *Which prefecture in Japan has the most number of wineries?* Yamanashi Prefecture *A six litre bottle of wine is called a…* Imperiale´ *Appellation Controllee´ is…* A system of regulating the French wine industry *Which animal features on the Yellowtail wine label?* Wallaby *The term bouchonne´ describes…* A cork-tainted wine *The famous red grape variety of Burgundy is?* Pinot Noir *Beaujolais Nouveau is released in Japan on the…* Third Thursday of November *What wine grape variety is most used for white wine production in Japan?* Koshu *Which wine would best pair with a rich beef dish?* Cabernet Sauvignon

Dodd *et al.* (2005)	*Which wine is not fortified?* *Most wine bottles in the United States are which size?* *Chardonnay is what type of wine?* *Port is usually served with what type of food?* *The southern region of this country is most associated with sherry…* *Shiraz is what type of wine?* *Which wine should be served at room temperature?* *What fermentation method is typically used for white wine?* *No answers provided by authors
Robson *et al.* (2014) and Vigar-Ellis *et al.* (2015)	*Which of the following is a red wine?* A) Riesling, B) Chardonnay, C) Merlot, D) Sauvignon Blanc, E) Don't know *A peppery character is most associated with which wine?* A) Merlot, B) Shiraz/Syrah, C) Semillion, D) Pinot Noir, E) Don't know *Which grapes are never used to make Champagne?* A) Chardonnay, B) Riesling, C) Pinot Noir, D) Pinot Meunier, E) Don't know *Which is not a famous French wine region?* A) Bordeaux, B) Champagne, C) Rheingau, D) Alsace, E) Don't know *Which is the name of New Zealand's famed Sauvignon Blanc region?* A) Kapiti, B) Hawkes Bay, C) Waipara, D) Marlborough, E) Don't know

SUBJECTIVE KNOWLEDGE QUESTIONS:

AUTHOR(S)	**SUJECTIVE KNOWLEDGE QUESTION EXAMPLES**
Forbes *et al.* (2008)	I know pretty much about wine. I do not feel very knowledgeable about wine. Among my circle of friends, I am one of the "experts" on wine. Compared to most other people, I know less about wine.
Flynn and Goldsmith (1999)	I know pretty much about wine. I know how to judge the quality of a bottle of wine. I think I know enough about wine to feel pretty confident when I make a purchase. I do not feel very knowledgeable about wines. Among my circle of friends, I'm one of the "experts" on wines. I have heard of most of the new wines that are around. Compared to most other people, I know less about wines. When it comes to wine, I really don't know a lot. I can tell if a bottle of wine is worth the price or not.
Perrouty *et al.* (2006)	I don't understand much about wine. I feel competent about in my knowledge of wine. Among my friends, I am the one who is the wine expert. Compared to others, I know less about the subject of wine.

QUESTIONNAIRE

FOR OFFICE USE ONLY - RESPONDENT NUMBER

SECTION A: WINE PURCHASING AND CONSUMPTION

Please indicate the most suitable answer to you:

1. How often do you drink wine?	1. Daily	2. Twice or more per week	3. Once per week	4. Maximum twice per month	5. Occasionally	6. Never
2. How often do you purchase wine?	1. Daily	2. Twice or more per week	3. Once per week	4. Maximum twice per month	5. Occasionally	6. Never

3. Which type of beverage do you prefer, where 1 = least preferred and 4 = most preferred?

3.1 Wine
3.2 Beer
3.3 Spirits, e.g. brandy and whisky
3.4 Non-alcoholic drinks

4. How would you describe your own interest in wine?	**1. No interest**	**2. Low interest**	**3. Neutral**	**4. Fairly interested**	**5. Very interested**
5. Do you purchase wine at the following places, for consumption socially and/or to take home?	**Never**	**Seldom**	**Occasionally**	**Often**	**Always**
5.1 Retail shops, e.g. Checkers, Spar Tops, Woolworths, Food Lover's Market	1	2	3	4	5
5.2 Retail wholesaler, e.g. Makro	1	2	3	4	5
5.3 Liquor store	1	2	3	4	5
5.4 Wine speciality store	1	2	3	4	5
5.5 Winery	1	2	3	4	5

5.6 Restaurant	1	2	3	4	5
5.7 Hotel	1	2	3	4	5
5.8 Bar	1	2	3	4	5
5.9 Online/Mail order	1	2	3	4	5
6. When you purchase wine from an off-premise location (e.g. retail shop, retail wholesaler, liquor store and wine speciality store), how important are the following information sources in terms of your choice of wine?	**Not important**	**Little important**	**Neutral**	**Important**	**Very important**
6.1 Personal experience	1	2	3	4	5
6.2 Recommendation from a clerk/salesperson	1	2	3	4	5
6.3 Recommendation from friends/family	1	2	3	4	5
6.4 Printed information, e.g. wine magazines, magazines, newspapers	1	2	3	4	5
6.5 Internet searches	1	2	3	4	5
6.6 TV and/or radio infomercials	1	2	3	4	5
6.7 Advertisements and promotional material	1	2	3	4	5
7. When you purchase wine at an on-premise location (e.g. restaurant, bar and hotel), how important are the following information sources?	**Not important**	**Little important**	**Neutral**	**Important**	**Very important**
7.1 Personal experience	1	2	3	4	5
7.2 Recommendation from a clerk/salesperson	1	2	3	4	5
7.3 Recommendation from friends/family	1	2	3	4	5
7.4 Printed information, e.g. wine magazines, magazines, newspapers	1	2	3	4	5
7.5 Internet searches	1	2	3	4	5
7.6 TV and/or radio infomercials	1	2	3	4	5
7.7 Advertisements and promotional material	1	2	3	4	5

SECTION B: YOUR WINE KNOWLEDGE IN GENERAL

8. Compared to others you know, how knowledgeable do you regard yourself to be about wine characteristics?	**1. Novice/ Inexperienced**	**2. Limited knowledge**	**3. Moderate knowledge**	**4. Substantial knowledge**	**5. Expert**
	Strongly disagree	**Disagree**	**Undecided**	**Agree**	**Strongly agree**

9. Compared to others that you know, how would you describe your own wine knowledge in terms of the following statements?					
9.1 Compared to others I know, I am very knowledgeable about wine characteristics.	1	2	3	4	5
9.2 Compared to others I know, I am very knowledgeable about how to serve wine.	1	2	3	4	5
9.3 Compared to others I know, I am very knowledgeable about the pairing of wine with food.	1	2	3	4	5
9.4 Compared to others I know, I am very knowledgeable about wine quality.	1	2	3	4	5
9.5 Compared to others I know, I am very knowledgeable about which wines do choose.	1	2	3	4	5

SECTION C: YOUR SPECIFIC WINE KNOWLEDGE

10. Please answer the following statements to the best of your ability.	True	False	I don't know
10.1 Table wines (excl. fortified and sparkling wines) have an alcohol content lower than 7%.	1	2	3
10.2 Chardonnay is a red wine.	1	2	3
10.3 Shiraz is a white wine.	1	2	3
10.4 Red wine can be well-paired with grilled white fish.	1	2	3
10.5 When making red wine the skins are left on the grapes during fermentation.	1	2	3
10.6 Expensive wines are exclusively closed with cork wine closures.	1	2	3
10.7 White wine should be served chilled.	1	2	3
10.8 The purpose of tasting wine at a restaurant is to verify that it is the correct wine.	1	2	3
10.9 Pinotage is a unique South African variety.	1	2	3
10.10 Tannins are normally present in white wines.	1	2	3

SECTION D: CONSUMER SELF-CONFIDENCE WHEN PURCHASING WINE AT OFF-PREMISE LOCATIONS FOR EXAMPLE RETAIL SHOPS, RETAIL WHOLESALER, LIQUOR STORE AND WINE SPECIALITY STORE

11. Please indicate your level of agreement with the following statements with regards to your self-confidence when choosing wine at off-premise locations.	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
11.1 I am confident in my ability to recognise a good brand of wine worth considering	1	2	3	4	5

11.2 I am frequently concerned about which wine to buy	1	2	3	4	5
11.3 I trust my own judgement to identify good wine brands prior to a purchase.	1	2	3	4	5
11.4 I have the ability to choose a good wine for an occasion	1	2	3	4	5
11.5 I have the ability to use sales gimmicks to my advantage	1	2	3	4	5
11.6 I am afraid to ask to speak to someone in a store with expertise in wine	1	2	3	4	5
11.7 I often doubt the wine purchase decisions I make	1	2	3	4	5
11.8 I impress people with the wine purchases I make	1	2	3	4	5
11.9 I can easily limit my focus on a few good brands of wine when making a decision	1	2	3	4	5
11.10 I know where to find the information I need prior to making a wine purchase	1	2	3	4	5
11.11 I know the right questions to ask when shopping for wine	1	2	3	4	5
11.12 I never seem to buy the right wine for me	1	2	3	4	5
11.13 My friends are impressed with my ability to pair wine and food	1	2	3	4	5
11.14 I receive compliments on my ability to distinguish between wines	1	2	3	4	5
11.15 I am confident in my ability to do an investigation about wine prior to a purchase	1	2	3	4	5
11.16 I have no trouble seeing through the bargaining tactics used by salespersons	1	2	3	4	5
11.17 I have the skills required to obtain needed information before making a wine purchase	1	2	3	4	5
11.18 I can tell which brands of wine will meet my expectations	1	2	3	4	5
11.19 I can see through the sales gimmicks used to get people to buy wine	1	2	3	4	5
11.20 I am too timid to speak up when I have a problem with the wine I choose	1	2	3	4	5
11.21 Too often the wine I buy is not satisfying	1	2	3	4	5
11.22 I am unwilling to complain to a store manager about the service I receive when purchasing wine	1	2	3	4	5
11.23 I do not like to tell the salesperson that it is the wrong wine for me	1	2	3	4	5
11.24 I know when a salesperson is trying to pressure me to buy a particular wine	1	2	3	4	5

SECTION E: CONSUMER SELF-CONFIDENCE WHEN CHOOSING WINE AT ON-PREMISE LOCATIONS, SUCH AS RESTAURANTS, BARS AND HOTELS

12. Please indicate your level of agreement with the following statements with regards to your self-confidence when choosing wine at on-premise locations.	**Strongly disagree**	**Disagree**	**Undecided**	**Agree**	**Strongly agree**

12.1 I know the right questions to ask when ordering wine	1	2	3	4	5
12.2 I do not like to tell the waiter that it is the wrong wine for me	1	2	3	4	5
12.3 I am frequently concerned about which wine to buy	1	2	3	4	5
12.4 I trust my own judgement to identify good wine brands prior to a purchase	1	2	3	4	5
12.5 I am confident in my ability to recognise a good brand of wine worth considering	1	2	3	4	5
12.6 I impress people with the wine purchases I make	1	2	3	4	5
12.7 I am afraid to ask to speak to someone in a restaurant, bar or hotel with expertise in wine	1	2	3	4	5
12.8 I receive compliments on my ability to distinguish between wines	1	2	3	4	5
12.9 I can see through the sales gimmicks used to get people to buy wine	1	2	3	4	5
12.10 I have the ability to use sales gimmicks to my advantage	1	2	3	4	5
12.11 I am too timid to speak up when I have a problem with the wine I choose	1	2	3	4	5
12.12 I often doubt the wine purchase decisions I make	1	2	3	4	5
12.13 I never seem to buy the right wine for me	1	2	3	4	5
12.14 Too often the wine I buy is not satisfying	1	2	3	4	5
12.15 I am unwilling to complain to a waiter about the service I receive when purchasing wine	1	2	3	4	5
12.16 I know where to find the information I need prior to making a wine purchase	1	2	3	4	5
12.17 I am confident in my ability to do an investigation about wine prior to a purchase	1	2	3	4	5
12.18 I have no trouble seeing through the bargaining tactics used by waiters	1	2	3	4	5
12.19 I can tell which brands of wine will meet my expectations	1	2	3	4	5
12.20 I know when a waiter is trying to pressure me to buy a particular wine	1	2	3	4	5
12.21 I can easily limit my focus on a few good brands of wine when making a decision	1	2	3	4	5
12.22 I have the ability to choose a good wine for an occasion	1	2	3	4	5
12.23 I have the skills required to obtain needed information before making a wine purchase	1	2	3	4	5
12.24 My friends are impressed with my ability to pair wine and food	1	2	3	4	5

SECTION F: DEMOGRAPHICS

Please answer the following questions:

13. What is your gender	Male	1
	Female	2

14. What was your age (in completed years) on your last birthday?		
15. What is your highest level of education?	No education	1
	Some primary schooling	2
	Complete primary schooling	3
	Secondary schooling	4
	Complete secondary schooling	5
	Undergraduate	6
	Graduate (degree or diploma)	7
	Honours Graduate	8
	Masters Graduate	9
	Doctors Graduate	10
	Unclassified	11
16. Do you have a wine qualification?	I don't have a wine qualification	1
	Self-taught about wine	2
	Wine course certificate	3
	Wine course diploma	4
	Wine course degree in wine service for example a sommelier	5
	Wine degree in for example viniculture, viticulture, oenology	6
17. In terms of the Employment Equity Act, to which population group do you belong?	Black	1
	White	2
	Coloured	3
	Indian	4
	Other (Specify)	
18. What is your approximate **total monthly HOUSEHOLD INCOME before tax deductions**? **(Joint income of partners/spouses)**	Less than R5000	1
	R5 000 or more but less than R10 000	2
	R10 000 or more but less than R15 000	3
	R15 000 or more but less than R20 000	4
	R20 000 or more but less than R25 000	5
	R25 000 or more but less than R30 000	6

	R30 000 or more but less than R35 000	7
	R35 000 or more but less than R40 000	8
	R40 000 or more but less than R45 000	9
	R45 000 or more but less than R50 000	10
	R50 000 or more	11
19. Please select your **area of residence** (Province) from the drop-down list		
Province		

APPENDIX C WINE STUDY EMAIL

CONSULTAPanel
your survey community

Dear Luzelle,

Are you someone who counts the seconds till it's "wine" o'clock or feel that a meal without wine is like a day without sunshine? Then this questionnaire is just for you!

Once again ConsultaPanel partnered with a masters student from the University of Pretoria to investigate consumers' self-confidence when choosing wine, pretty cool don't you think?

By fully completing the questionnaire you will be redirected to a real-time summary of some of the Community Members' results. You are not obligated to complete the survey and may stop at any time.

This questionnaire will take approximately 20 minutes to complete.

There are no right or wrong answers, your honest perceptions are very valuable in terms of the outcome of this study.

Remember that you can also complete the questionnaire on your Smartphone or tablet and even find it on your ConsultaPanel dash! Please be assured that all information will be kept confidential, so get started ASAP!

Your participation is greatly appreciated and will help our student reach a step closer to getting her degree.

Ciao for now,
The ConsultaPanel Team and Renée Myburg

APPENDIX D ETHICAL APPROVAL

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Natural and Agricultural Sciences
Ethics Committee

E-mail: ethics.nas@up.ac.za

Date: 21/07/2016

ETHICS SUBMISSION: LETTER OF APPROVAL

Prof A Erasmus,
Department of Consumer Science
Faculty of Natural and Agricultural Sciences
University of Pretoria

Reference number: EC160630-053
Project title: Wine consumers' knowledge of wine and their self-confidence in selecting wine in different sales contexts

Dear Prof Erasmus,

We are pleased to inform you that your submission conforms to the requirements of the Faculty of Natural and Agricultural Sciences Ethics committee on the condition that the only participation of the subjects is as described in the proposal narrative.

Please note that you are required to submit annual progress reports (no later than two months after the anniversary of this approval) until the project is completed. Completion will be when the data has been analysed and documented in a postgraduate student's thesis or dissertation, or in a paper or a report for publication. The progress report document is accessible of the NAS faculty's website: Research/Ethics Committee.

If you wish to submit an amendment to the application, you can also obtain the amendment form on the NAS faculty's website: Research/Ethics Committee.

The digital archiving of data is a requirement of the University of Pretoria. The data should be accessible in the event of an enquiry or further analysis of the data.

Yours sincerely,

M Potgieter

p/p **Chairperson: NAS Ethics Committee**

APPENDIX E PLAGIARISM DECLARATION

UNIVERSITY OF PRETORIA

FACULTY: Natural and Agricultural Sciences

DEPARTMENT: Consumer and Food Sciences

The Department of Consumer and Food Sciences places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

While academic staff teach you about referencing techniques and how to avoid plagiarism, you too have a responsibility in this regard. If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (e.g. a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim), but also when you submit someone else's work in a slightly altered form (paraphrase) or use a line of argument without acknowledging it. You are not allowed to use work previously produced by another student. You are also not allowed to let anybody copy your work with the intention of passing if off as his/her work.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University. The declaration which follows must accompany all written work submitted while you are a student of the Department of Consumer and Food Sciences no written work will be accepted unless the declaration has been completed and attached.

Full names of student: **Renée van Wyk**

Student number: **12017702**

Topic of work: **Wine consumers' knowledge of wine and their self-confidence when selecting wine in different sales contexts**

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this **dissertation** is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.
3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

SIGNATURE .....

APPENDIX F COVER LETTER

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Natural and Agricultural Sciences
Department of Consumer Science
012 420 2531
August 2016

Dear Respondent

This questionnaire forms part of a research project for my Masters degree that investigates consumers' self-confidence when choosing wine. Thank you for completing this questionnaire which **will take approximately 20 minutes** of your time.

Please complete every question. There are no right or wrong answers. Rather, your honest perceptions are very valuable in terms of the outcome of this study. You may refuse to participate and may withdraw at any time if you wish to do so but please keep in mind that **all the questionnaires are completed anonymously** and that the **content will therefore remain confidential**.

Please read the instructions before answering to ensure that the information is useful and relevant. If you leave out a question, the whole questionnaire might have to be discarded. Please answer carefully.

Should you wish to contact the researcher, you can do so at 079 516 0959 or reneemyburg@gmail.com.

PLEASE NOTE ALL QUESTIONS ARE RELATED TO WINE.

Your participation is greatly appreciated.

Kind Regards,
Renée Myburg

Student - M Consumer Science Food Management

Study leaders: Prof AC Erasmus & Mr HJ Fisher

APPENDIX G SOUTH AFRICAN CENSUS 2011 – INCOME VERSUS LEVEL OF EDUCATION OF SOUTH AFRICANS

Census 2011 Release v1.3

Table 1

Grouped level of education by Income category

for Person adjusted

	No income	R 1 - R 4800	R 4801 - R 9600	R 9601 - R 19200	R 19201 - R 38400	R 38401 - R 76800	R 76801 - R 153600	R 153601 - R 307200	R 307201 - R 614400	R 614401- R 1228800	R 1228801 - R 2457600	R2457601 or more
No schooling	1030268	294487	143324	1273449	152222	51183	19019	9297	7143	595	716	359
Some primary	4295810	4072848	400313	1386520	308797	133459	49320	27028	12867	1679	2498	1730
Completed primary	1092358	454125	116241	389408	137607	62718	20348	7656	3560	509	620	326
Some secondary	7576691	1272996	599444	1827619	1152532	653961	304785	138541	44138	8757	6280	3611
Grade 12/Std10	4023653	257942	287358	798763	1043055	950261	771263	417846	126175	30043	13752	9313
Higher	825100	45365	51245	141592	206795	383315	724579	767515	367186	128884	38914	27705

APPENDIX H SOUTH AFRICAN CENSUS 2016 – AGE DISTRIBUTION OF RESIDENTS IN THE NINE PROVINCES OF SOUTH AFRICA ABOVE THE AGE OF 21

Provinces	Millennials		Generation X		Baby Boomers		The Greatest Generation		Total	
	n	%	n	%	n	%	n	%	n	%
Western Cape	1 525 057	4.66	1 527 653	4.67	776 650	2.37	209 671	0.64	**4 039 031**	**12.35**
Eastern Cape	1 683 577	5.15	1 026 610	3.14	679 461	2.08	207 074	0.63	**3 596 722**	**11.00**
Northern Cape	295 333	0.90	248 544	0.76	135 648	0.41	42 836	0.13	**722 361**	**2.21**
Free State	731 526	2.24	576 536	1.76	319 279	0.98	82 687	0.25	**1 710 028**	**5.23**
KwaZulu-Natal	2 754 806	8.42	1 890 954	5.78	1 002 998	3.07	273 155	0.84	**5 921 913**	**18.11**
North West	931 257	2.85	775 068	2.37	403 971	1.24	103 494	0.32	**2 213 790**	**6.77**
Gauteng	3 452 747	10.56	3 538 524	10.82	1 581 484	4.84	380 360	1.16	**8 953 115**	**27.37**
Mpumalanga	1 159 123	3.54	826 143	2.53	387 561	1.18	102 860	0.31	**2 475 687**	**7.57**
Limpopo	1 446 942	4.42	946 327	2.89	500 509	1.53	179 471	0.55	**3 073 249**	**9.40**
Total	**13 980 367**	**42.75**	**11 356 357**	**34.72**	**5 787 561**	**17.70**	**1 581 609**	**4.84**	**32 705 894**	**100.00**

The three provinces with the majority of residents (in terms of the population as a whole) in the following age groups have been highlighted.

APPENDIX I SOUTH AFRICAN CENSUS 2016 – GEOGRAPHY HIERARCHY 2016 BY HIGHEST LEVEL OF EDUCATION

Provinces	Lower than Grade 12	Grade 12	Degree	Postgraduate Degree	Total
Western Cape	2 103 260	1 346 538	188 429	33 238	**3 671 465**
Eastern Cape	2 229 187	893 300	93 015	9 588	**3 225 090**
Northern Cape	423 602	200 843	15 988	1 318	**641 751**
Free State	953 159	538 763	46 458	4 932	**1 543 312**
KwaZulu-Natal	2 786 748	2 243 207	172 685	15 535	**5 218 175**
North West	1 222 227	666 756	49 081	6 330	**1 944 394**
Gauteng	3 863 085	3 456 089	460 444	64 400	**7 844 018**
Mpumalanga	1 184 707	855 790	48 084	4 732	**2 093 313**
Limpopo	1 623 387	828 097	83 275	6 386	**2 541 145**
Total	**16 389 362**	**11 029 381**	**1 157 458**	**146 459**	**28 722 660**