

A study to understand if there is a significant relationship between wine consumption and income levels of wine consumers in India**DR. DEEPA PRASAD VENKATRAMAN**

Associate Professor

Department of Management Sciences, PUMBA

Savitribai Phule Pune University.

E -503, Pinnac Kanchanganga, Aundh, Pune.

Abstract

Indian alcohol consumption is growing and increasing each year, both of distilled spirits and fermented beverage such as wine. World Health Organisation in the year 2016 said that on an average each resident about six litres of alcohol in its pure state per year, the consumption of drinks was mostly whiskies with synonymous and Scottish sounding names such as “Royal Stag”. Indian Wine manufactures especially in Maharashtra which produces most of the Indian wines are trying to change the attitude from spirit consumption to wine consumption, although last year each Indian consumed on average a little more than a tablespoon of wine which has grown from a thimble spoon and still considered by WHO double the figure of consumption than a decade before and has seen an increase in Wine consumption with the growth in Indian economy for the last decade. The leader in bringing in the change that is Sula, which now produces roughly half of the wine consumed in India. In 2018 it became the first Asian winery outside China to sell 1m cases in a year. At Sula, the biggest and oldest of the farms, some 350,000 people visit each year for tours and wine tastings, which is conducted throughout the week and has an adjoining restaurant, tasting session with tour on the hour is available to all guest. A majority of the visitors with family who take a tour of the vineyard have never tasted wine before and after the tasting session buy wines from the vineyard for consumption. The expanding wine industry in India is midst a vital transition and booming with increasing sales in both tier 1 and tier II CITIES IN India. Last year, the country’s wine production hit a record 17 million liters, with a rising 40 percent increase in sales and export year-on-year to reach US\$4.4 million in the first 7 months. With a rapidly growing Indian domestic consumer market and increasing government and Industry support in primary wine-producing States, such as Maharashtra, Karnataka the Indian wine industry has potential to expand consumption both domestically and in the global market.

Introduction

A decade of success for the Indian wine market growth and consumer consumption. are leading producers of world class high-quality grapes and wines to produce in India and increased consumers of wine.

In addition, to further promote investment and production, the States like Maharashtra established a number of integrated wine parks which provide basic infrastructure facilities and offer incentives for new units such as: a 100 percent exemption from

excise duty for 10 years, relief in sales tax levels and subsidies for production duties. As a result, many new wineries have since commenced production. However, industry competition remains low, with 80 percent of the market occupied by three major players.

i) Retail Market expansion and sale of wines and reach to all income segment of Indian Consumers

. In addition, supermarket is making wine sales accessible and visible to a spectrum of income segment which was earlier only available to high-end chains which allocated spaces for fine wine and well-known International Brands. Today there has been growing demand for sales of domestic wines, as imported wines suffer from high retail prices due to import tariffs and consumer unfamiliarity.

ii) Palate Broadening of Wine consumers

Wine drinkers in India are predominantly largely upper income earners with high levels of disposable income. Initially wine was primarily consumed as an urban drink in Metro cities the Delhi metro area and Mumbai accounting for approximately 75 percent of consumption. Last few years there has been encouraging transition to wine among professional working in smaller cities and towns which is no easy feat.

A growing wave is, wine is becoming increasingly popular among younger generations and women. Furthermore, the recent education push has led to a growing awareness of health issues surrounding consumption of hard liquor and benefits of red wine.

Therefore, while only a very small percentage of India's total population around 24 million consumers have the right combination of religious views, age, location, income and exposure, which is a very definite and potentially significant and lucrative emerging consumer market.

Indian wineries are working to produce less expensive and more palatable sweet wines to cater to the likes of Indian consumer drinking preference and expand the market to those with moderate incomes.

While marginal challenges are overcome, consumers can expect the wineries to become increasingly professional approach contributing to short to medium term increase in demand as well as sale and should prioritize the Indian consumer in any attempt to broaden the growing market.

iii) Perceptions of wine consumption

Wine has always been a drink surrounded by a certain amount of mystery. There are various myths and misconceptions still held by people about wine.

In the July 2008 edition of Go Now, Subhash Arora, President of the Indian Wine Academy wrote an article titled "Myths and Misconceptions about Wine"

He writes "interacting with wine lovers, I have realized that many people in India and in fact even around the world believe in dozens of myths, half-truths and have many misconceptions about wine"

He further goes on to identify the most common misconceptions and gives an explanation to discredit these misconceptions.

iv) Imported wines are better than Indian wines

Obviously with centuries of wine making experience, coupled with facing and surviving global competition, majority of international wines have an edge over Indian wines, which are still at a nascent stage. However, with the quality of many Indian wines going up and a continuing influx of cheap and bulk wine at the low price points, Indian wines can hold their own.

Grover and Sula make some very palatable wines and many new producers like Chateau d'Ori, Vintage Wines, Chateau Banyan and Nine Hills make wines of a high standard.

v) More expensive the wine, better it is

While it is true that cheaper wines cannot be fine wines due to the inherent higher cost of production of quality wines, they can also command prices due to the branding and market perception. A positive rating by a well-known wine expert like Robert Parker can result in the price shooting up

Additionally, in India, with the import duties levied on imported wine, a cheap table wine from Europe can be sold at a fairly expensive rate in the Indian retail market. This does not necessarily mean it is of a better quality.

A research study on this subject was conducted in the USA, where consumers were asked to rate wines based on taste only. They were not given the name or brand of wine, nor were they informed of the price of the wine. (Goldstein R. , Almenberg, Dreber, Emerson, Herschkowitsch, & Katz, 2008)

The study was titled “Do more expensive wines taste better? Evidence from a large sample of blind tastings “

In this study, a large sample of more than 6,000 US blind tastings, compiled by food and wine critic Robin Goldstein. Blind tastings offered the opportunity to isolate the experience of the wine itself from psychological confounds related to its price, presentation or published expert ratings.

The relationship between price and the subjective appreciation of wines, when the price is unknown to the tasters, was studied. Subjective appreciation was measured by overall ratings assigned to wines by individual participants.

The main finding was that, on average, individuals who were unaware of the price did not derive more enjoyment from more expensive wine. In fact, they enjoyed more expensive wines slightly less.

The study concluded that, in a large sample of blind tastings, the correlation between price and overall rating was small and negative. Individuals on average enjoyed more expensive wines slightly less. The results suggested that price tags were a poor guide for non-expert wine consumers who care about the intrinsic qualities of the wine.

Research Methodology**Scope of Research**

The scope of this research is categorised into three sections. Conceptual scope outlines the need for the research. Geographical scope justifies the geographical location chosen

for the research. Finally, the analytical scope outlines methods of analysis and determines that it is rigorous enough for the research.

Geographical scope

It is only from the mid 70's that wine was manufactured locally in India. A few distilleries in Goa and Andhra Pradesh produced Port wine. Until the year 2000 there were hardly six wineries. Since 2000 there are close to 73 producing wineries and another 30 additional companies that have registered to become producers.

There are a few major wineries that account for the bulk of domestic wine production. Typically, smaller wineries around that region produce for the larger ones, rather than market their own brand

Maharashtra is also the largest wine producing state of India. This state accounts for over 90% of Domestic wine production. Further, out of the total 66 wineries in Maharashtra, 44 are in Nashik and Pune. They account for about 80% of the production in Maharashtra.

Compared to Nashik, Pune is a larger and more metropolitan city. Given the proximity of Pune to Nashik, most of the wine manufacturers in the region hold wine fests and events in Pune city.

Pune has also become a hub for the Information Technology (IT) industry. There is a large population of young and educated workforce with large disposable incomes. The awareness and consumption of wine in the Pune region is second only to Mumbai.

Given this, the population for this study was the wine consumers in Pune city (Pune Municipal Corporation Limits).

Analytical scope

Data collation and analysis was carried out using statistical software. The primary data collected was in a questionnaire form and the questions were close ended. This offered the researcher the ability to apply statistical techniques to analyse data and report findings.

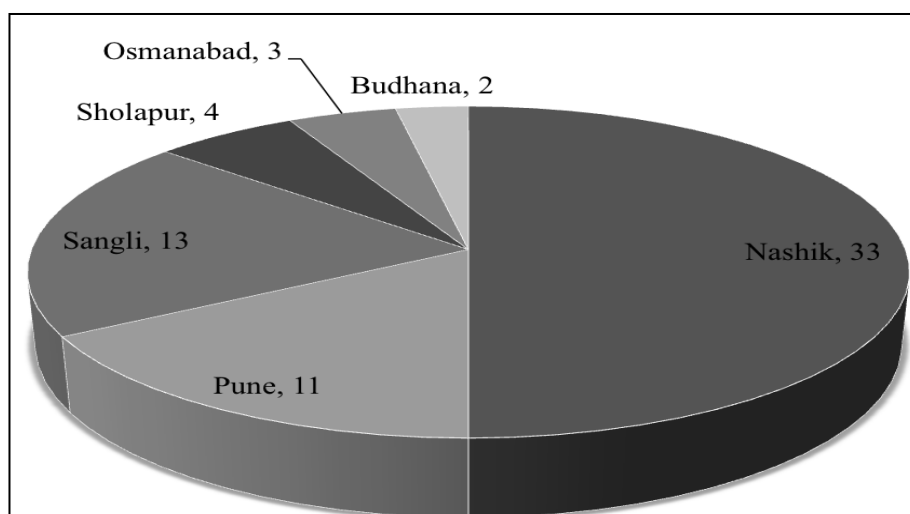
The data collected was Categorical data. The variables in the questionnaire were of Nominal, Dichotomous and Ordinal. Given this data the tests that were carried out were Cross-Tabulation, Frequencies, Chi-Square tests, Binomial Test, Kruskal-Wallis Test and Mann-Whitney U test.

Sampling**Population of concern**

The population of Pune city was used as the target population for this study. Maharashtra is also the largest wine producing state of India. This state accounts for over 90% of Domestic wine production.

Figure 1 further shows that Nashik, Sangli and Pune account for over 90% of the Production in Maharashtra.

Figure 1 Wineries in Maharashtra



Given the proximity of Pune to Nashik, most of the wine manufacturers in the region hold wine fests and events in Pune city.

The population for this study was the wine consumers in Pune city .

Sampling method

A purposive sampling method was used for the research. This is one that is selected based on the knowledge of a population and the purpose of the study.

Homogeneous sampling is a purposive sampling technique that aims to achieve a homogeneous sample; that is, a sample whose respondents share similar characteristics or traits.

A homogeneous sample is often chosen when the research question that is being address is specific to the characteristics of the particular group of interest, which is subsequently examined in detail.

The subjects were selected based on the premise that they consume wine. Snapshot data collection was carried out at wine fests, restaurants serving wine and outlets that sell wine. This gave the researcher a high probability that the persons at these locations are wine consumers.

Sample size

According to the Census department and the tentative census figures for 2011¹, the Pune city Population is 31,15,431 comprising of 16,02,137 Males and 15,13,294 Females.

Table 1 Required sample size.

Required Sample size	
	Confidence = 95%
Population Size	Degree of Accuracy/Margin of Error

¹ The Indian Census. Retrieved March 2013, from <http://www.census2011.co.in:>
<http://www.census2011.co.in/census/city/375-pune.html>

	0.05	0.035	0.025	0.01
2,50,000	384	782	1527	9248
5,00,000	384	783	1532	9423
10,00,000	384	783	1534	9512
25,00,000	384	784	1536	9567
31,15,431	384	784	1536	9574
1,00,00,000	384	784	1536	9594
10,00,00,000	384	784	1537	9603

Source: Educational and psychological measurement 1970

Using the calculations provided by Krejcie & Morgan in their “Determining Sample Size for Research Activities”² (Table 1) the sample size for the population mentioned above shall be 384 at a Confidence Level of 95% with Margin of Error 5%.

Data collection

Data for the research was collected in two categories. The primary data was collected from wine consumers in Pune using the questionnaire method.

A questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic³

The questionnaire was framed and a pilot study was carried out to check whether the questionnaire was understood well by the respondents. The researcher, to ensure accurate and valid data used, member check, or respondent validation. An interview was conducted and questions were explained to the subjects to ensure reliable responses.

To aid in statistical analysis of the data collected, most of the questions were close ended. The respondents' answers were limited to a fixed set of responses.

The secondary data consisted of books, periodicals, wine magazines and information and data from wineries.

Data validation

Data was collected at wine events, among known wine consumers, at restaurants that sell wine and at wine selling outlets in the city.

The responses of 411 persons were chosen for data analysis as they fulfilled all criteria required for the study.

The calculated required sample size for the population is 384 at a Confidence Level of 95% with Margin of Error 5%. (Table.1)

During the collation of data 269 respondents did not consume any form of alcohol. A further 235 respondents consumed alcohol but did not consume wine.

The data collected from these respondents was not used in the final analysis. Reference to this data was briefly made to identify reasons why they did not consume alcohol or wine.

² Krejcie & Morgan 1970, “Determining Sample Size for Research Activities” (*Educational and Psychological Measurement*), 30, pp. 607-610

³ Merriam-Webster. Retrieved April 2013, from <http://www.merriam-webster.com/dictionary/questionnaire>

Tools and techniques of analysis

Data collation and analysis was carried out using statistical software. The primary data collected was in a questionnaire form and the questions were close ended. This offered the researcher the ability to apply statistical techniques to analyse data and report findings. The tools used for analysis were Microsoft Excel⁴ and IBM SPSS Statistics⁵. Microsoft Excel was used for initial collation of data and was also used to generate the graphs and tables. IBM SPSS Statistics was used to analyse data using the appropriate statistical techniques.

Statistical tests

The data collected was Categorical data. The variables in the questionnaire were of Nominal, Dichotomous and Ordinal.

Nominal variables are variables that have two or more categories, but which do not have an intrinsic order. For example, types of wine are categorized as red, white or sparkling. Dichotomous variables are nominal variables, which have only two categories or levels. For example, if we were looking at gender, we would most probably categorize somebody as either "male" or "female". Another example can be questions that elicit a yes or no answer.

Ordinal variables are variables that have two or more categories just like nominal variables only the categories can also be ordered or ranked.

Given this data the tests that were carried out were Cross-Tabulation, Frequencies, Chi-Square tests.

Chi-Square test for Association

The chi-square test for independence, also called Pearson's chi-square test or the chi-square test of association, is used to discover if there is a relationship between two categorical variables.

A cross sectional study as a part of Descriptive research was adopted for the study. The data was collected at a single instance, as a snapshot and processed for analysis.

The statistical tests used for analysis were, Cross-Tabulation, Frequencies, Chi-Square tests, Binomial Test, Kruskal-Wallis Test and Mann-Whitney U test

The analysis of the data and reporting of analysis follows in the next chapter.

Data Analysis

The source for all the following data analysis is from the Primary data (Questionnaire – Appendix A) unless mentioned otherwise

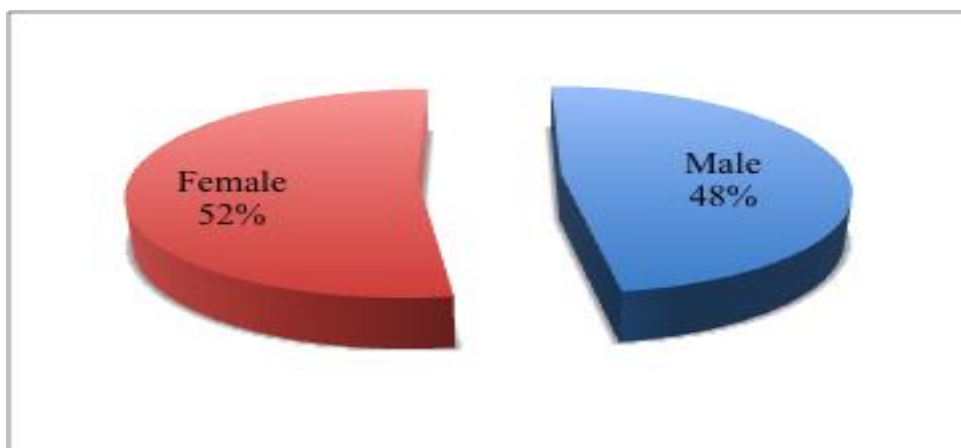
⁴ Microsoft Excel 2011 Version 14 © 2010 Microsoft corporation

⁵ IBM SPSS Statistics Version 21© IBM Corporation and other(s) 1989,2012

Data Analysis**The demography of the sample population.**

Table 2 Gender distribution

		Frequency	Percent
Valid	Male	196	47.7
	Female	215	52.3
	Total	411	100

Figure-2 Gender distribution

Pune city population has an almost equal distribution of males and females.⁶ The city has a burgeoning population of educated working professionals comprising of both genders.

As wine has lower alcohol content, both genders equally prefer it and an equal mix of both genders has been taken for the study.

Various wines complement and enhance the meal and wine is an ideal drink to be had along with a meal.

Of the 411 people from whom data was collected, 48% were male and 52% female. (Figure 2). Although it may be perceived that wine is a lady's drink, it is seen that wine is equally preferred by both the genders.

Income range break-up of the sampled population

The range used for tabulating income is based on the Income tax slabs and rates for Assessment year 2012-13 (Financial Year 2011-12)⁷

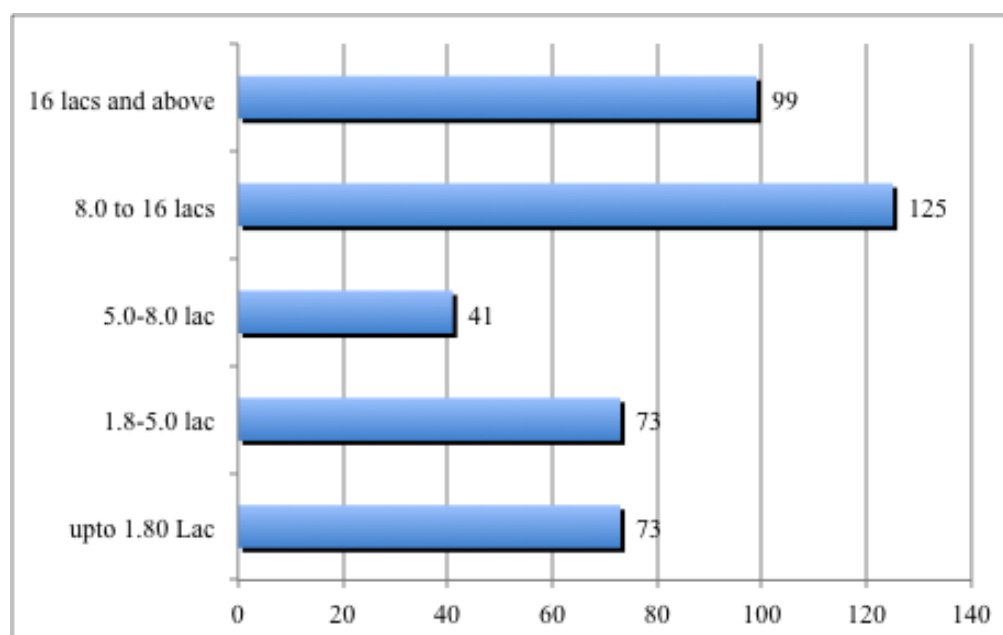
Table 3 Income Range Group

⁶ The Indian Census. (n.d.) Retrieved March 2013, from <http://www.census2011.co.in: http://www.census2011.co.in/census/city/375-pune.html>

⁷ Department of Revenue, Ministry of finance, Government of India. Retrieved June 2012, from <http://finotax.com/income-tax/slabs-prev>

	Income Range	Frequency	Percent
Valid	Upto 1.80 Lac	73	17.80
	1.8-5.0 lac	73	17.80
	5.0-8.0 lac	41	10.00
	8.0 to 16 Lacs	125	30.40
	16 Lacs and above	99	24.10
	Total	411	100

Figure 3 Income range break-up



Wine, both Indian and imported, is priced higher than other fermented beverages like beer, cider and also different types of hard liquor. The price of wine varies with grading, quality, style, year of manufacture and country they originate from.

Generally, wine is bought by the bottle and not by glass or peg like other liquor. Once opened, the bottle of wine needs to be consumed as soon as possible or the wine goes bad. Therefore, buying and consuming wine is relatively expensive.

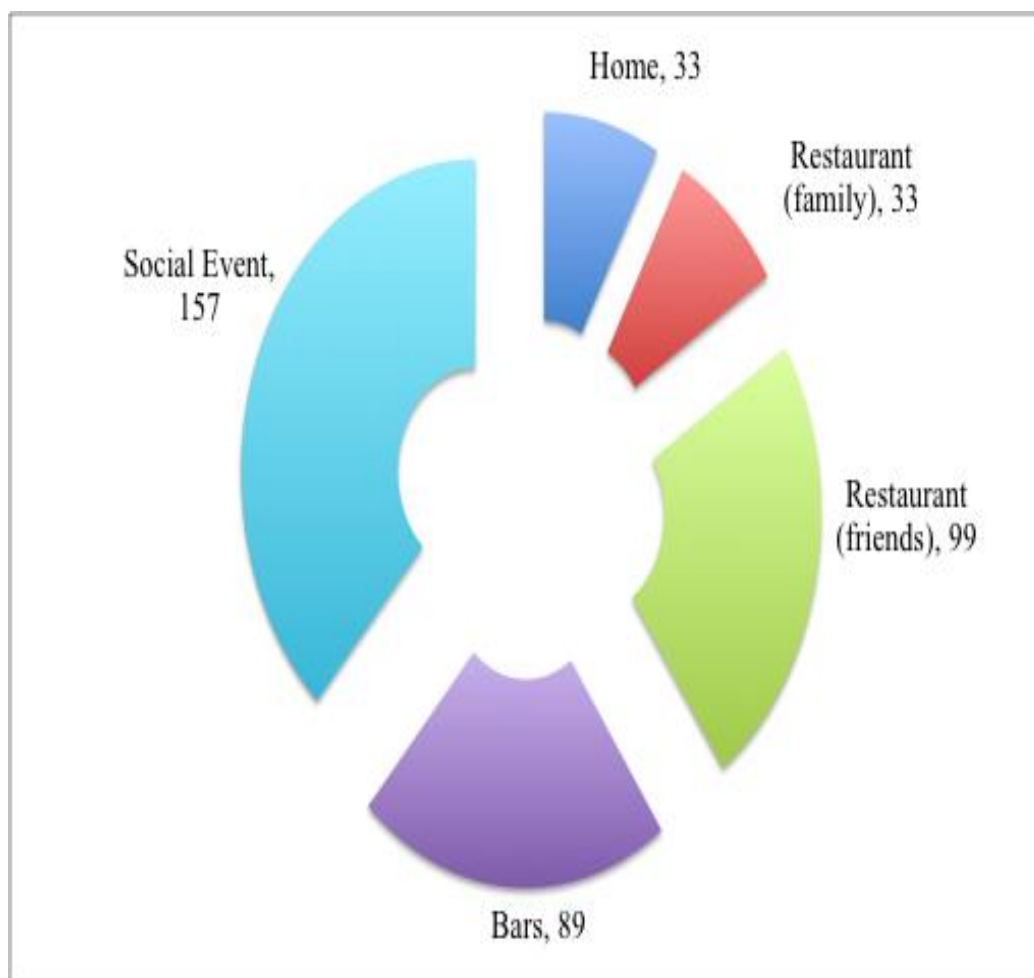
The disposable income with the higher bracket income group is more. They are more akin to have increased spending on entertainment and dining in speciality restaurants bars and lounges.

The places where alcohol is most frequently consumed.

Table 4 Locations where alcohol is most consumed

		Frequency	Percent (%)
Valid	Home	33	8.0
	Restaurant (family)	33	8.0
	Restaurant (friends)	99	24.1
	Bars	89	21.7
	Social Event	157	38.2
	Total	411	100

Figure 4 Locations where alcohol is most consumed



The Indian socio psyche still prefers consuming alcohol outside the family environment. A large majority prefer consuming alcohol at social events such as functions, parties, cocktails and conferences. Alcohol is also consumed by a large number of people at restaurants and bars.

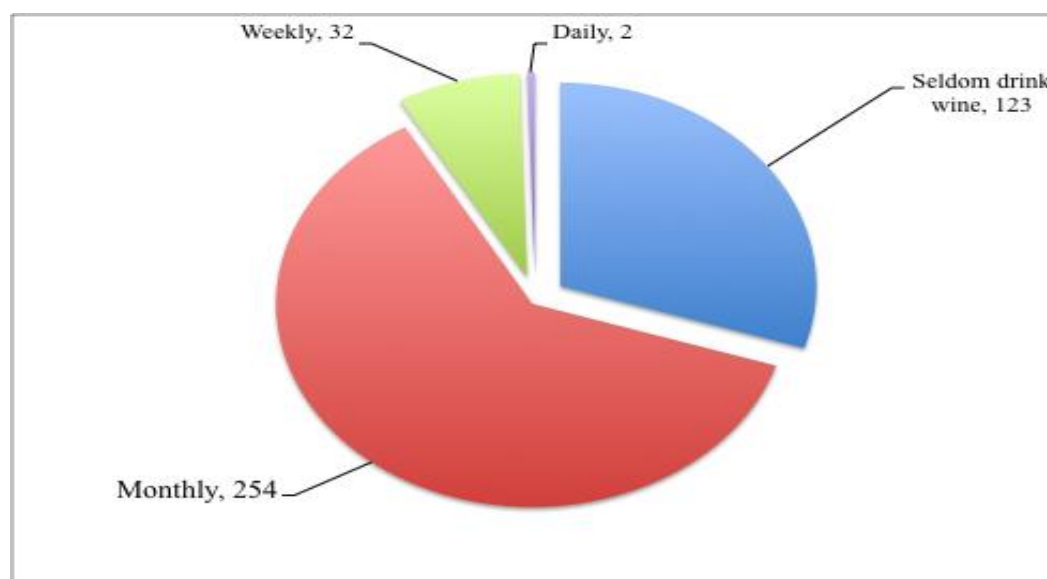
This is evident in the data as illustrated in Figure 4

The frequency of wine consumption by the sample population

Table 4 Frequency of wine consumption

		Frequency	Percent
Valid	Seldom drink wine	123	29.9
	Monthly	254	61.8
	Weekly	32	7.8
	Daily	2	0.5
	Total	411	100

Figure Frequency of wine consumption



Consumers who mentioned, seldom, consume wine when offered and around two or three times a year. They do not regularly buy and consume wine. A majority of the wine consumers drink wine once a month.

Generally, wine is bought by the bottle and not by glass or peg like other liquor. Once opened, the bottle of wine needs to be consumed as soon as possible or the wine goes bad.

This is one reason why bottles of wine are not opened too frequently and general consumption is once a month. Additionally, there are consumers who consider wine a drink for special occasions and celebrations.

There are however a small percentage of consumers who do consume wine more frequently, on a weekly basis.

There is a significant relationship between wine consumption and Income levels

The source for all the data analyzed in the following section of Hypotheses testing is from the primary data that was collated.

The primary data was analyzed using Microsoft Excel⁴ and IBM SPSS⁵.

Non-parametric tests were used to evaluate the attitudes and perceptions of the sample population.

The statistical tests used for analysis were, Cross tabulation, Chi-Square test for Association.

There is a significant relationship between wine consumption and Income levels

To test if income levels of the consumer have a relationship to the frequency of wine consumption, Chi-Square test was used.

Table 5 Income Range vs Frequency of Wine Cross tabulation

			Frequency of wine consumption				Total
			seldom	monthly	weekly	daily	
Income	Upto	Count	50	23	0	0	73

Range	1.80 Lac	% Income Range	68.5%	31.5%	0.0%	0.0%	100.0%
		% Regular Wine	40.7%	9.1%	0.0%	0.0%	17.8%
		% of Total	12.2%	5.6%	0.0%	0.0%	17.8%
	1.80-5.00 lac	Count	41	32	0	0	73
		% Income Range	56.2%	43.8%	0.0%	0.0%	100.0%
		% Regular Wine	33.3%	12.6%	0.0%	0.0%	17.8%
		% of Total	10.0%	7.8%	0.0%	0.0%	17.8%
	5.00 – 8.00 lac	Count	6	34	1	0	41
		% Income Range	14.6%	82.9%	2.4%	0.0%	100.0%
		% Regular Wine	4.9%	13.4%	3.1%	0.0%	10.0%
		% of Total	1.5%	8.3%	0.2%	0.0%	10.0%
	8.00 – 16.00 Lacs	Count	22	99	4	0	125
		% Income Range	17.6%	79.2%	3.2%	0.0%	100.0%
		% Regular Wine	17.9%	39.0%	12.5%	0.0%	30.4%
		% of Total	5.4%	24.1%	1.0%	0.0%	30.4%
	16 Lacs and above	Count	4	66	27	2	99
		% Income Range	4.0%	66.7%	27.3%	2.0%	100.0%
		Regular Wine	3.3%	26.0%	84.4%	100.0%	24.1%
		% of Total	1.0%	16.1%	6.6%	0.5%	24.1%
	Total	Count	123	254	32	2	411
		% Income Range	29.9%	61.8%	7.8%	0.5%	100.0%
		% Regular Wine	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	29.9%	61.8%	7.8%	0.5%	100.0%

Table 5 Chi Square Test (Hyp. 2)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	179.744 ^a	12	.000
Likelihood Ratio	176.553	12	.000
Linear-by-Linear Association	130.646	1	.000
N of Valid Cases	411		
a. 6 cells (30.0%) have expected count less than 5. The minimum expected count is .20.			

Table 5 Symmetric measures (Hyp. 2)

		Value	Approx. Sig.
Nominal by Nominal	Phi	.661	.000
	Cramer's V	.382	.000
N of Valid Cases		411	

The Chi-Square value (Table 4.2.3) is 179.744 with Degree of Freedom of 12 and $p=0.000$ (<0.005).

Phi and Cramer's V (Table 4.2.4) are both test of the strength of association and it is observed that the strength of association between the variables is significant.

Since the calculated p value is less than 0.05 the research Hypothesis is accepted.

There is a strong relationship between income levels and wine consumption.

Conclusion

- Correlation between demographics and frequency of wine consumption showed that the higher the income levels the more frequently wine was consumed.
- This is further reflected in the purchase concerns of the wine consumer.
- A majority of the wine consumers consider price of the wine to be an important factor when purchasing wine.
- Most wine consumers were aware of Indian brands and gave importance to the brand they were drinking.
- Wine, both Indian and imported, is priced higher than other fermented beverages like beer, cider and also different types of hard liquor.
- The price of wine varies with grading, quality, style, year of manufacture and country they originate from.
- Generally, wine is bought by the bottle and not by glass or peg like other liquor. Once opened, the bottle of wine needs to be consumed as soon as possible or the wine goes bad. Therefore, buying and consuming wine is relatively expensive.
- The disposable income with the higher bracket income group is more. They are more akin to have increased spending on entertainment and dining in speciality restaurants bars and lounges.
- The income group of 8 lakh and above have a disposable income and expenditure on dining out.
- Increasing expenditure by working professional and predominately middle class on wine consumption.
- It is expected that wine consumption will increase in the higher income bracket persons.
- Pune wine consumers do not harbour the typical myths and misconceptions about wine. The respondents were found to be fairly knowledgeable about wine.
- Consumers who mentioned, seldom, consume wine when offered and around two or three times a year. They do not regularly buy and consume wine. A majority of the wine consumers drink wine once a month.
- Generally, wine is bought by the bottle and not by glass or peg like other liquor. Once opened, the bottle of wine needs to be consumed as soon as possible or the wine goes bad.
- This is one reason why bottles of wine are not opened too frequently and general consumption is once a month. Additionally, there are consumers who consider wine a drink for special occasions and celebrations.
- There are however a small percentage of consumers who do consume wine more frequently, on a weekly basis.
- There is a significant relationship between wine consumption and Income levels.

Bibliography

i) Referred Books

Anderson, S., & Anderson, D. (1989). *Winemaking: Recipes, Equipments and Techniques for Making Wine at Home*. Harvest Book Press.

Andrews, S. (2008). *Textbook of food and beverage management*. New Delhi: Tata McGraw-Hill Publishing Company Limited.

Arnell, J. (2006). *Wine*. Collins Press.

- Gabler, J. (2003). *Wine into Words: A History and Bibliography of Wine*. Bacchus Press.
- Hall, M., & Mitchell, R. (2007). *Wine marketing: A practical guide*. Butterworth-Heinemann.
- Halliday, J., & Johnson, H. (2008). *The art and science of Wine*. London: Mitchell Beazley.
- Harding, G. (2005). *A wine miscellany*. New York: Clarkson Potter.
- Hurley, J. (2005). *A Matter of Taste: A History of Wine drinking in Britain*. The History Press Limited.
- Immer, A. (2000). *Great wine made simple*. New York: Broadway books.
- Janesick, V. J. (1994). *Handbook of qualitative research*. Thousand Oaks SAGE publications.
- Janics, R. (2001). *How to taste: A guide to Enjoying Wine*. Simon and Schuster.
- Johnson, H. (1992). *Vintage: The story of wine*. New York: Simon & Schuster.
- Johnson, H. (2001). *How to enjoy your wine*. London: Octopus Publishing group.
- Johnson, H., & Robinson, J. (2005). *The World Atlas of Wine*. Mitchell Beazley Publishing.
- Lillicrap, D., & Cousins, J. (2010). *Food and Beverage Service* (Eight Edition ed.). London: Book Power.
- MacNeil, K. (2001). *The Wine Bible*. Workman Publishing.
- Parker, R. (2002). *The Wine Buyers Guide*. Dorling Kindersley Publisher Ltd.
- Phillips, R. (2000). *A short history of wine*. New York: Ecco.
- Rathore, A. S. (2006). *The Complete Indian Wine Guide*. New Delhi: Roli Books Pvt.Ltd.
- Redman, L., & Mory, A. (1923). *The Romance of Research*.
- Robinson, J. (2006). *The Oxford companion to wine (3rd Edition)*. Oxford: Oxford University Press.
- Shields, P. M., & Rangarajan, N. (2013). *A Playbook for Research Methods: Integrating Conceptual Frameworks and Project Management*. Stillwater, OK: New Forum Press.
- Siegel, C. (1988). *Nonparametric Statistics for the Behavioral Sciences (Second ed.)*. New York: McGraw-Hill.
- Singh, M. (2005). *Wine Wisdom: Buying and Drinking Wine in India*. New Delhi: Penguin Books.

Stevenson, T. (2005). *The Sotheby's Wine Encyclopedia*.

Thach, L., Olsen, J., & Wagner, P. (2007). *Wine marketing and sales: Success strategies for saturated market*. Wine appreciation Guild.

Unwin, T. (1991). *Wine and the Vine: A Historical Geography of Viniculture and the Wine Trade*. Routledge.

Vine, R. (1997). *Winemaking: From Grape Growing to Marketplace*. New York: Chapman & Hall.

Walton, S., & Glover, B. (1998). *The Ultimate Encyclopedia of Wine, Beer, Spirits & Liqueurs*. Anness Publishing Limited.

ii) Referred Journals, Studies and Periodicals

Anderson, K., & Nelgen, S. (2011). *Wine's Globalization: New Opportunities, New Challenges*. University of Adelaide, Wine Economics Research Centre. University of Adelaide Press. ISSN 1837-9397

Anderson, K., & Nelgen, S. (2011). *Global wine markets, 1961 to 2009: a statistical compendium*. Adelaide: University of Adelaide Press, ISBN 978-0-9870730-1-3 (electronic)

Berkowitz, M. (1996, September). World's Earliest Wine. *Archaeology Magazine* ISBN 0-89096-784-9, 49 (5).

Goldstein, R., Almenberg, J., Derner, A., Emerson, J., Herschkowitsch, A., & Katz, J. (2008). *Do More Expensive Wines Taste Better? Evidence from a Large Sample of Blind Tastings*. American Association of Wine Economists. AAWE Working paper No.16, JEL codes: L15, L66, M30, Q13, ISSN: 2166-9112

Gore, J. (2008). *Comprehensive Study of the Indian Wine Market*. The Wine Institute. JBC International, EMP Project Report No.E07MXIN001

International Organisation of Vine and Wine. (2012). *Statistical Report on world vitiviniculture*. Paris: International Organisation of Vine and Wine.

Kalkar, P., & Venkatraman, D. (2013, October 12). The Pune wine consumers' myths and misconceptions. *Emerging issues in corporate strategies*, ISSN: 2347-4173

Kalkar, P., & Venkatraman, D. (2014, January). A Study on the Pune wine consumers' perceptions of wine. *Vishwakarma Business Review*, ISSN: 2229-6514 (Print), 2230-8237 (online)

Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational and psychological measurement* (30), 607-610, ISSN: 0013-1644 (print) 1552-3888 (web)

McGovern, P. (2003). *Ancient Wine: The Search for the Origins of Viniculture*. Princeton University Press, ISBN: 9780691127842

Mishra, S. (2011). *India, Exporter Guide*. USDA Foreign Agricultural Service, Global Agricultural Information Network (GAIN). USDA Service, GAIN Report Number: IN1215

MKF Research. (2007). *The impact of Wine, Grapes and Grape Products on the American*

Economy 2007. MKF Research LLC.

Rathore, A., & Bagul, S. (2005). *Indian Wine Industry Report 2004-2005*. DSM Marketing Pvt.Ltd. DSM Marketing.

Rickard, B. (2009). *Introducing wine into grocery stores: Economic implications and transitional issues*. Ithica, USA: American Association of Wine Economists, AAWE working paper No.48 - JEL Codes: Q18, ISSN: 2166-9112

Sagala, R. (2013). *The Impact of General Public Wine Education Courses on consumer Perception*. American Association of Wine Economists, Business. AAWE Wine Economics, ISSN 2166-9112

Sanghvi, V. (2011, September 23). Wine's Cheat Sheet. *Hindustan Times*.

Satish, B., & Chandra, S. (2012). Wine Marketing an Untamed Market in India. *Radix International Journal of Research in Social Science*, 1 (11), ISSN: 2250 – 3994

Sood, D. (2012). *Wine Market Update 2012* USDA Foreign Agricultural Service, Global Agricultural Information Network. USDA Foreign Agricultural Service, GAIN report No. - IN2162

Stockley, C. (2009). *Wine and Health Information*. Adelaide: The Australian Wine Research Institute, ISBN: 0 9577870 5 7

TNN. (2013, January 25). Hike in VAT, excise leaves Indian wine industry high and dry in AP. *The Times of India*.

Venkatraman, D. (2012, October 11). Emerging wine consumption patterns in Pune. *Redefining management practices: A perspective in changing business scenario* , 01-07, ISBN :978-81-908387-9-5

Western Australia Trade Office - India. (2012). *Indian Wine Industry Report*. Government of Western Australia, Department of Agriculture and Food - WA.

Wittwer. (2007). *The Global Wine Market in the Decade to 2015 with a Focus on Australia and Chile*. Monarch University, The Centre of Policy Studies. Clayton: Monarch University, ISSN 1 031 9034.

iii) Referred Websites

AIWPA. (2011). *Key statistics of the Indian wine industry*. (D. Corporation, Producer) Retrieved January 2013, from <http://allindiawine.com.server11.atxservers.com/Markets/Domestic.aspx>

Arora, S. (2012, December 20). *India's emerging wine industry*. Retrieved February 2013, from http://www.delhiwineclub.com/MEDIA/Emerging_Wine_Industry.aspx

Arora, S. (n.d.). *Finally- Wine in Delhi Supermarkets*. Retrieved June 2012, from http://www.indianwineacademy.com/item_7_387.aspx

Bell, R. (n.d.). *Wines of Canada*. Retrieved April 2012, from http://www.winesofcanada.com/learn_calander.html

California State University. (n.d.). Retrieved April 2013, from

<http://www.csulb.edu/~msaintg/ppa696/696preex.htm#Cross-SectionalDesign>

Cameron, D. (2013, March). Retrieved May 2013, from hms.harvard.edu:
<http://hms.harvard.edu/news/new-study-validates-longevity-pathway-3-7-13>

Central Board of Excise and Customs. (n.d.). Retrieved June 2013, from
<http://www.cbec.gov.in/customs/cst2012-13/cst1213-idx.htm>

Chandra, A. (n.d.). www.gryphonbrands.com. Retrieved July 2013, from
http://www.gryphonbrands.com/history_wine.htm

Department of Commerce Alcohol and Tobacco Tax and Trade Bureau . (n.d.). Retrieved October 2013, from <http://www.statisticbrain.com/wine-sales-statistics>

Department of Revenue, Ministry of finance, Government of India. (n.d.). Retrieved June 2012, from
<http://finotax.com/income-tax/slabs-prev>

Leve, J. (n.d.). *The wine cellar insider*. Retrieved April 2012, from
<http://www.thewinecellarinsider.com/wine-topics/wine-educational-questions/wine-grapes-vineyard-france-classifications-appellation-law/>

Liano, C. (2009, April 21). *Study Shows Wine Drinkers With Non-Hodgkin's Lymphoma Less Likely to Die or Have Relapse*. Retrieved January 2013, from WebMD:
<http://www.webmd.com/cancer/news/20090421/wine-may-protect-against-cancer>

Lion Distributors. (2011). Retrieved April 2012, from <http://www.liondistributors.com/>:
<http://www.liondistributors.com/legend-of-wine/>

Merriam-Webster. (n.d.). Retrieved April 2013, from <http://www.merriam-webster.com/dictionary/questionnaire>

New World Encyclopedia. (n.d.). Retrieved March 2012, from
<http://www.newworldencyclopedia.org/entry/grape>

Puckette, M. (n.d.). Retrieved February 2013, from <http://winefolly.com/review/5-unbelievable-wine-regions/>

The Indian Census. (n.d.). Retrieved March 2013, from <http://www.census2011.co.in>:
<http://www.census2011.co.in/census/city/375-pune.html>

Unknown. (15 March 2012). *Socio-cultural Changes Cheer India's Wine Market*. Knowledge@Wharton, Retrieved July 2012, from
<http://knowledge.wharton.upenn.edu/article/socio-cultural-changes-cheer-indias-wine-market/>

Wine Institute. (n.d.). Retrieved June 2013, from
<http://www.wineinstitute.org/resources/statistics/article697>

wineportfolio. (n.d.). *Great French Wine Blight*. Retrieved March 2012, from
<http://www.wineportfolio.com/sectionLearn-Great-French-Wine-Blight.html>