## A Comparative Study on Ratings of Indian Wine with Imported Wine

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#### ABSTRACT

The study attempts to determine the gaps of wine consumers ratings to Indian wine as compare with imported wine. Twelve parameters are used to compare the ratings of Indian with Imported wine on five-point scale. 325 wine consumers have selected for this study from major wine consuming regions of India. Correlation Coefficient and student t test were used to examine wine consumers ratings. The study found that there is highly significant difference in the ratings given to Indian and Imported wine. This paper reveals that wine consumers consider imported wine superior to Indian wine.

*Keywords--* Imported Wine, Indian Wine, Wine Attributes, Wine Consumers, Wine Ratings

#### I. INTRODUCTION

Indian wine industry is growing rapidly at a compound growth rate of 20 to 25 % and estimated value at US\$150 million where imported wine accounts only 30%. (India Briefing, May2021). India has more than 485 million dinking age population that boosts to a drinking culture in metro cities. With changes in social and cultural boundaries in India, wine is now becoming the status symbol among high societies.

Most of Indian wine brands are used famous imported grapes such as Cabernet Sauvignon, Pinot Noir, Syrah/Shiraz among red varietals and Viognier,

Riesling, and Chardonnay among white varietals, have found connoisseurs among millennials who made up for over 50 percent of wine drinkers in 2018.

Domestic wine production in 2018 has reached approx. 17 million litters whereas only 5.2 million litters are imported in the same year.

Indian wine market is an initial stage but attracts wine exporters from all over the world due to its future potential. The cultural revolution that millennial India is undergoing is forcing a change in tastes and preferences, inching towards more refined and premium imported wines.

As rising level of awareness in health, Indian consumers select healthy alternative acholic drinks wine as compare with other hard liquor that contribute to its popular among drinkers.

As geopolitical trends are forcing large-scale wine exporters like Australia to refocus on newer markets – the Indian market should not be ignored. The right market strategy will involve assessing key market bases, developing a relationship with and promoting awareness among Indian wine consumers, and investing in the opportunities associated with the country's young market.

India have more than 123000 acres of vineyards but only 1 to 2 % has utilised for production of wine. Presently 110 wineries are in India and 72 of the vineyards are in the Maharashtra only.

| India's Wine Import by Region (2018-2019) |                               |       |       |
|---|-------------------------------|-------|-------|
| Country                                   | Calendar year (US\$ millions) |       |       |
|   | 2017                          | 2018  | 2019  |
| World                                     | 25.70                         | 28.38 | 23.63 |
| Singapore                                 | 1.10                          | 5.85  | 5.73  |
| Australia                                 | 4.14                          | 6.82  | 5.60  |
| France                                    | 9.87                          | 5.73  | 4.51  |
| Italy                                     | 3.09                          | 3.05  | 2.19  |
| Chile                                     | 1.46                          | 1.58  | 0.12  |
| United States                             | 0.97                          | 1.08  | 0.85  |
| Spain                                     | 0.61                          | 0.73  | 0.73  |
| United Arab Emirates                      | 0.12                          | 0.12  | 0.61  |
| New Zealand                               | 0.37                          | 0.37  | 0.37  |
| South Africa                              | 0.49                          | 0.73  | 0.37  |

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Indian wines are considered as '' better value for Money'' as imported wines are very costlier than Indian wine. Most of Indian drinkers now consume domestic wine despite a similar awareness of Indian and imported wine among wine drinkers in India.

#### II. REVIEW OF LITERATURE

Sonal Holland (2017) has mentioned in her research India Wine Insider, 2017 that wine has evolved as an important emerging market in India however even today, whisky and rum continue to dominate alcohol consumption in India, the increasing availability of wine and local production of wine attract more of consumers towards Indian wine. India as price sensitive market, around 50 % wine consumers give their wine orders by glass as moderate drinker.

Dr. Suja John and Prof. Avin Mathew, Dr. K.K.Singh, Author, Tourism and Development (2000) has highlighted the potential of wine tourism in worldwide through some case studies .They have also identified that India has a tremendous potential for promoting wine tourism.

RNCOS, Industry research solution (2011) has in a press release Wine Tourism: An Emerging Trend in the Indian Wine Industry, RNCOS, Industry Research Solution (2011) also identified. The volume of wine consumption in India is anticipated to develop at a CAGR of around 25 percent during 2011-2014, according to RNCOS study document "Indian Wine Industry Analysis." The main factors responsible for the development of the Indian wine market are increased disposable income, wine tourism, wine clubs and festivals, and increasing women's preference for wine also highlighted through a press release.

G.S. Karibasappa, P.G. Adsule, S.D. Sawant and K. Banerjee have studied the Indian wine sector in terms of the country's wine region, manufacturing and advertising. There are currently around 38 wineries working in the nation with a complete annual output of 6.2 million liters. With 36 wineries and 5.4 million liters of manufacturing, Maharashtra is top.

Indian Ecstasies: A Travel Experience also highlighted wine tourism in India. An article pointed out that India's govt. has taken an initiative to take tourism back to India. In India, the Ministry of Tourism has picked up various tourism themes that have increased tourist influx. Wine Tourism is the newest of all.

Times of India (May, 2012) has also emphasized on wine tourism in India by Nasik to get first wine Club house. TOI stated that the country's wine capital will now have its own Wine Club House as it has been approved by the Maharashtra Tourism Development Corporation to set up it at Godavari Wine Park in Vinchur district of Nasik. At other locations in the state where grape wine is produced, MTDC also plans to open more Wine Club Houses

Travelling in India (July31, 2009) has drawn attention to Wine Tourism in India. It has highlighted India is also gearing up to break the shackles of normalcy and venture into new zones. Long known as a country of temples and palaces, India is now trying a makeover to promote itself as a wine tourism destination too. Indian Government has finally discovered the wine hungry market that's growing at a fast pace, and is trying to catch up with the front runners of the industry in a quest to promote wine tourism.

Ajay Kumar Gothwal, Wine Educator has shown the real image of wine tourism in India. He has also highlighted the wine tourism is one of the fastest growing industry in the world and India as known as Culture and heritage tourism destination in the world also emphasized on wine tourism as a latest trend of tourism.

M. V. Rajeev Gowda, professor of economics and social sciences at the Indian Institute of Management, Bangalore, notes that "the shift in social attitudes toward consumption of wine and its growing popularity in India are reflective of deeper social and cultural changes that are taking place in the society."

Harish Bijoor, brand strategist and CEO of Harish Bijoor Consults and a visiting professor at the Indian School of Business, Hyderabad, adds: "Economic prosperity has found ways of flowing out into social prosperity, and the eating and drinking out levels have grown exponentially. With this, wine finds center-stage." Bijoor points out that wine has become the entry-drink of liquor consumption in the food chain.

Prof Larry Lockshin, Wine Marketing Research Group, University of South Australia, John Hall, University of Victoria, Australia contributed to the research paper Consumer Purchasing Behaviour for Wine: What We Know and Where We Go highlighted that wine marketing should include special topics such as consumer behavior for wine, wine tourism and cellar doors (direct sales), supply chain management from the vineyard and supplier to the end user, Labeling and packaging, wine events, awards for medals and shows, promotional activities, exporting including market choice and market choice channel, selecting and managing agents, protecting intellectual property (names and logos), and world wine and alcohol regulation.

#### III. OBJECTIVES OF STUDY

In order to study the wine consumer ratings to Indian wine, we have followings objectives in the study:

- To find out the wine consumer views about Indian wine as compare with Imported wine.
- To measure acceptability of Indian wine in Indian Wine market.

#### IV. HYPOTHESIS

 $H_{01}$ : There is no significant difference in the ratings given to Indian and imported wine by wine consumers.  $H_{11}$ : There is a significant difference in the ratings given to Indian and imported wine by wine consumers.

#### V. RESEARCH METHODOLOGY

The research is a descriptive one and the researcher has collected the information's from the respondent from five major cities of India. The sample size for wine consumer was calculated using Cochran's Formula taking following parameters for calculating sample size –

Confidence level = 95% Margin of error = 5% p = 0.5, q = 0.5 that gives the value of sample size = 385.

Total 400 questionnaires were floated in five major cities of India viz. Mumbai, Bangalore, Delhi, Jaipur and Pune. The main reason of selecting these cities is that – data shows that the consumption of wine is highest in these cities. 75 samples were in -completed so only 325 respondents have taken in this study. Correlation Coefficient and student t test were used to examine wine consumers ratings

#### VI. ANALYSIS AND RESULTS

It is an established fact that the consumer ratings are influenced by many factors which are classified into different groups. All groups have well defined below:

**Table 1:** Distribution of respondents according to gender

| Gender | N   | %      |
|--------|-----|--------|
| Male   | 226 | 69.54  |
| Female | 99  | 30.46  |
| Total  | 325 | 100.00 |

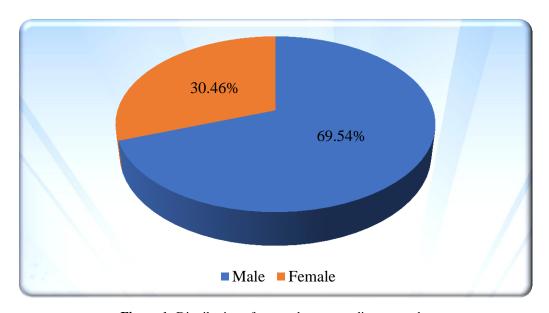


Figure 1: Distribution of respondents according to gender

Table 1 shows distribution of wine consumers according to gender, out of total 325 respondents 69.54% were male wine consumers and rest 30.46% were female wine consumers. It can be seen that though proportion of

male wine consumer is high but significant number of females also consumes wine which was considered taboo for female in Indian society.

**Table 2:** Distribution of respondents according to age

| Age (years) | N   | %      |
|-------------|-----|--------|
| Below 20    | 23  | 7.08   |
| 20 to 40    | 220 | 67.69  |
| 40 to 60    | 70  | 21.54  |
| Above 60    | 12  | 3.69   |
| Total       | 325 | 100.00 |

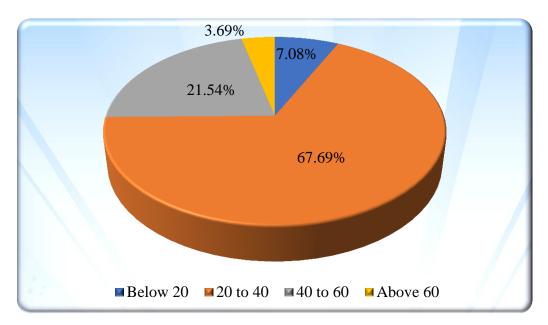


Figure 2: Distribution of respondents according to age

Table 2 shows distribution of respondents according to age. Out of total 325 respondents maximum 67.69% belongs to 20 to 40 years of age group, 21.54% wine consumers were from age group of 40 to 60 years

and below 10% wine consumers belongs to age group of below 20 (exactly 7.08%) and above 60 years (3.69%). Thus, it can be observed that maximum wine consumers are of young age group between 20 to 40 years.

Table 3: Distribution of respondents according to nationality

| Nationality | N   | %      |
|-------------|-----|--------|
| Indian      | 249 | 76.62  |
| Foreigner   | 76  | 23.38  |
| Total       | 325 | 100.00 |

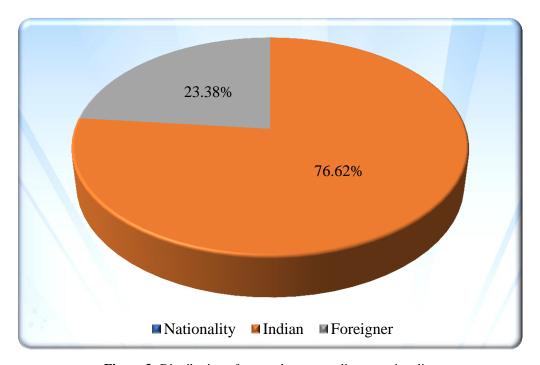


Figure 3: Distribution of respondents according to nationality

Table 3 shows distribution of respondents according to nationality. The sample selected of wine consumers consists of 76.62% Indian wine consumers and rest 23.38% were foreigners. From this data it cannot be concluded that Indian's consumers wine more

as compared to foreigners, this disproportion in the sample is due to difficulty in finding foreigners who are wine consumers and could fill the questionnaires at the same time.

Table 4: Distribution of respondents according to marital status

| Marital Status     | N   | %      |
|--------------------|-----|--------|
| Married            | 163 | 50.15  |
| Unmarried / Single | 162 | 49.85  |
| Total              | 325 | 100.00 |

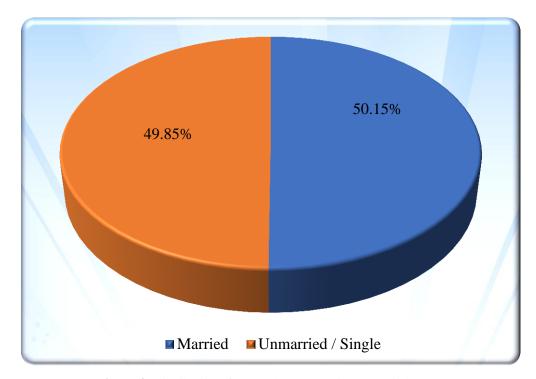


Figure 4: Distribution of respondents according to marital status

The sample of wine consumers consists of almost equal proportion of married and single or unmarried wine consumers. In the table 4.4 distribution

of respondents according to marital status shows that there were 50.15% married wine consumers and 49.85% single or unmarried wine consumers.

 Table 5: Distribution of respondents according to highest qualification

| Qualification | N   | %      |
|---------------|-----|--------|
| Undergraduate | 60  | 18.46  |
| Graduate      | 124 | 38.15  |
| Post Graduate | 129 | 39.69  |
| Other         | 12  | 3.69   |
| Total         | 325 | 100.00 |

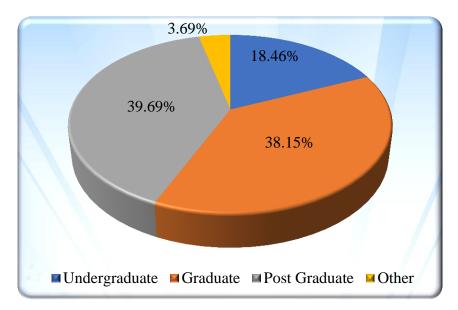


Figure 5: Distribution of respondents according to highest qualification

Table 5 shows distribution of respondents according to educational qualification of respondents. The table shows almost equal proportion of graduate and post graduate respondents. There were 38.15% graduate

respondents, 39.69% post graduate respondents, 18.46% respondents were undergraduate and rest 3.69% with other qualifications.

Table 6: Distribution of respondents according to occupation

| Occupation     | N   | %      |
|----------------|-----|--------|
| Government Job | 17  | 5.23   |
| Private Job    | 148 | 45.54  |
| Business       | 85  | 26.15  |
| Student        | 62  | 19.08  |
| Other          | 13  | 4.00   |
| Total          | 325 | 100.00 |

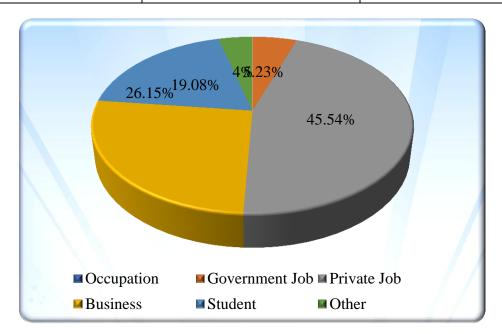


Figure 6: Distribution of respondents according to occupation

Table 6 shows distribution of respondents according to occupation. The distribution table reveals that 45.54% respondents were in private jobs, 26.15% were in business, 19.08% were students, only 5.23%

were in government jobs and remaining 4% with other occupations like they may be retired persons or housewives.

Table 7: Monthly income

| Monthly Income           | N   | %      |
|--------------------------|-----|--------|
| Below Rs. 30,000         | 10  | 3.08   |
| Rs. 30,000 to Rs. 50,000 | 81  | 24.92  |
| Rs. 50,000 to Rs. 70,000 | 69  | 21.23  |
| Above Rs. 70,000         | 134 | 41.23  |
| No Response              | 31  | 9.54   |
| Total                    | 325 | 100.00 |

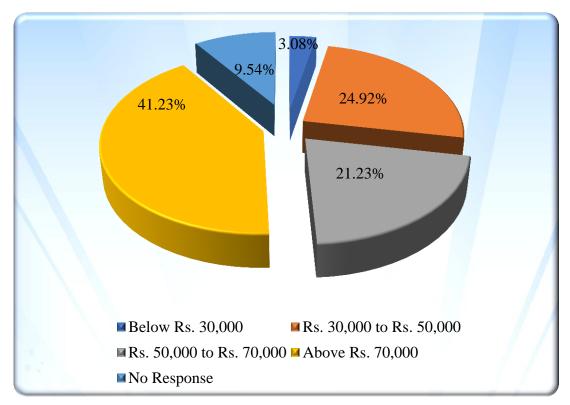


Figure 7: Monthly income

As far as distribution according to monthly income is concerned 24.92% respondents belongs to 30,000 to 50,000 Rs. per month income, 21.23% respondents having income between 50,000 to 70,000,

41.23% respondents were from the income group of above 70,000 Rs. per month income only 3.08% respondents having income below Rs. 30,000 per month. Rest 9.54% persons didn't reveal their income.

Table 8: Lifestyle

| Lifestyle       | N   | %      |
|-----------------|-----|--------|
| Modern          | 112 | 34.46  |
| Cosmopolitan    | 65  | 20.00  |
| Outgoing        | 55  | 16.92  |
| Partying nature | 93  | 28.62  |
| Total           | 325 | 100.00 |

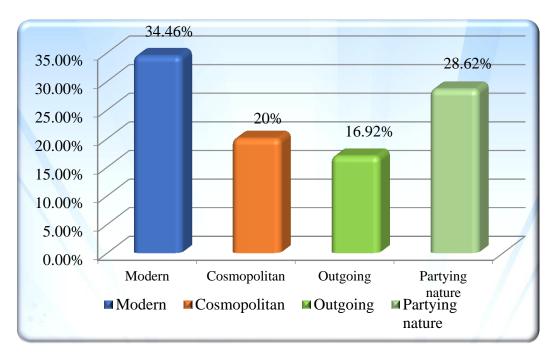


Figure 8: Lifestyle

When it was asked about the lifestyle, they were living table 4.8 shows that 34.46% wine consumers were living modern life style, 20% living cosmopolitan life style, 16.92% outgoing life style and remaining 28.62%

were living partying nature of life style. Hence our sample consists of people or wine consumers living varying type of life styles.

Table 9: Your knowledge about Indian wine

| Response      | N   | 0%     |
|---------------|-----|--------|
| Excellent     | 30  | 9.23   |
| Good          | 162 | 49.85  |
| Average       | 99  | 30.46  |
| Below Average | 22  | 6.77   |
| Poor          | 12  | 3.69   |
| Total         | 325 | 100.00 |

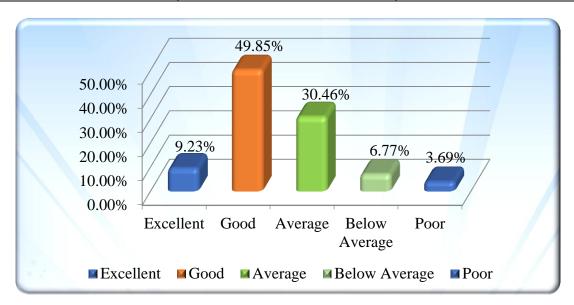


Figure 9: Your knowledge about Indian wine

When it was asked from the respondents about the knowledge about Indian wine the knowledge level varies from average to excellent. 9.23% said that they are having excellent knowledge about Indian wine. 49.85% said that they are having good knowledge about Indian wine. 30.46% said average knowledge, 6.77%

said below average knowledge and rest 3.69% admitted that they are having poor knowledge about Indian wine. Thus, on the basis of this data it can be said that maximum consumers having average to good knowledge about Indian wine.

Table 10: Frequency of Purchasing Indian Wine

| Frequency            | N   | %      |
|----------------------|-----|--------|
| Once in a week       | 58  | 17.85  |
| 2-3 times in a week  | 72  | 22.15  |
| 3-4 times in a month | 74  | 22.77  |
| Once in a Month      | 121 | 37.23  |
| Total                | 325 | 100.00 |

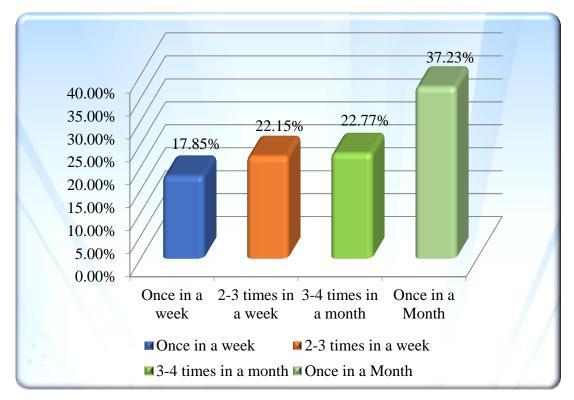


Figure 10: Frequency of Purchasing Indian Wine

Table 10 shows response of wine consumers regarding frequency of purchase of wine. From the table it can be inferred that frequency of purchase of wine of consumers is spread over various frequencies. 37.23% wine consumers purchase wine once in a month, 22.77% purchase three to four times in a month, almost same

proportion of respondents i.e. 22.15% consumers purchase wine two to three times a week and remaining 17.85% purchase wine once in a week. Hence, it can be said that most of the persons purchase wine once in a month and proportion of wine consumers decrease with increased frequency of purchase.

Table 11: Timings of Purchasing Indian Wine

| Timing of purchase | N   | %      |
|--------------------|-----|--------|
| Before 7 PM        | 63  | 19.38  |
| 7 to 9 PM          | 118 | 36.31  |
| After 9 PM         | 64  | 19.69  |
| Anytime            | 80  | 24.62  |
| Total              | 325 | 100.00 |

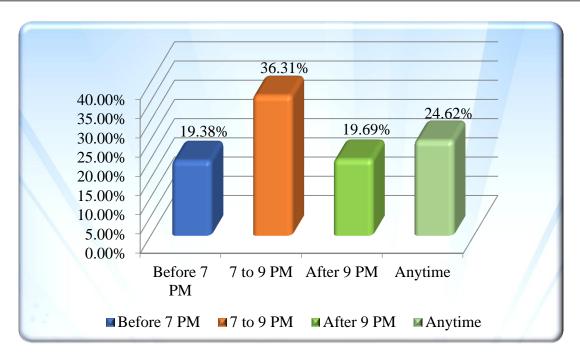


Figure 11: Timings of Purchasing Indian Wine

As far as time of purchase of Indian wine is concerned, it also varies for wine consumers. 36.31% wine consumers purchase wine between 7-9 pm with maximum frequency, 19.38% purchase wine before 7

pm with almost same proportion 19.69% consumers purchase wine after 9 pm and remaining 24.62% purchase wine anytime.

**Table 12: Accompanying Person to Purchase Wine** 

| Number of Person | N   | %      |
|------------------|-----|--------|
| Alone            | 70  | 21.54  |
| 2-3 People       | 186 | 57.23  |
| 4-5 People       | 61  | 18.77  |
| More than 5      | 8   | 2.46   |
| Total            | 325 | 100.00 |

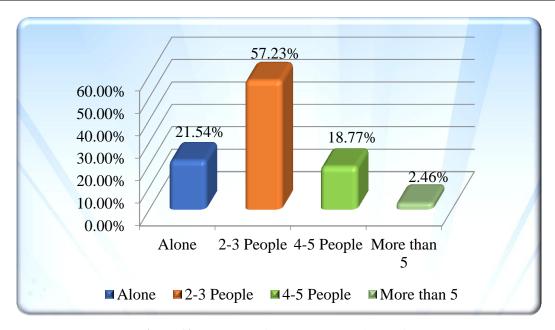


Figure 12: Accompanying Person to Purchase Wine

According to distribution in table 12 the number of persons accompanying while purchasing wine are maximum two to three persons (57.23%). 21.54%

wine consumers purchase wine alone. 18.77% purchase wine along with four to five persons and only 2.46% purchase wine with accompanying more than 5 persons.

| Place             | N   | %      |
|-------------------|-----|--------|
| Family Restaurant | 72  | 22.15  |
| Bar               | 108 | 33.23  |
| Pub               | 57  | 17.54  |
| Home              | 39  | 12.00  |
| Anywhere          | 49  | 15.08  |
| Total             | 325 | 100.00 |

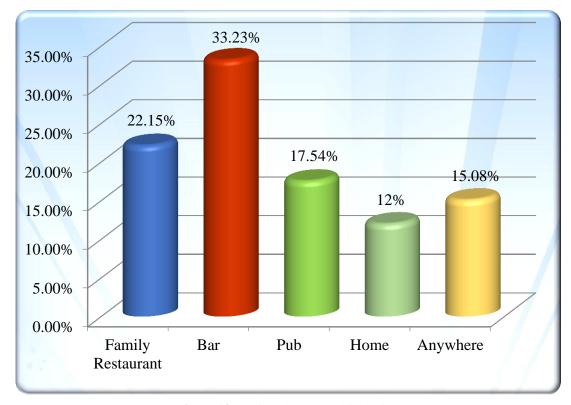


Figure 13: Preferred Place to drink Wine

Table 13 shows distribution according to preferred place of wine. Maximum 33.23% prefer bar as a place of taking wine. 17.54% prefer to take it in pub. 22.15% prefer to take wine in a family restaurant, 12%

prefer to take it at home and rest 15.08% take wine anywhere and they have no particular choice of place for taking wine.

Table 14: Usual Consumption of Indian Wine

| Usual Consumption  | N   | %      |
|--------------------|-----|--------|
| 1 Glass            | 95  | 29.23  |
| 2-3 Glasses        | 120 | 36.92  |
| 1 Bottle           | 80  | 24.62  |
| More than 1 Bottle | 30  | 9.23   |
| Total              | 325 | 100.00 |

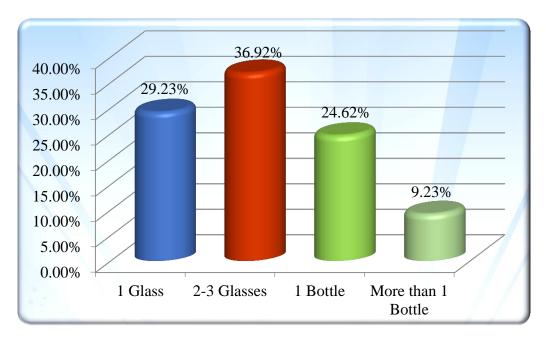


Figure 14: Usual Consumption of Indian Wine

Table 14 shows distribution according to quantity of wine consumed. 39.92% wine consumers consume two to three glasses usually. 29.23% take only

one glass. Nearly quarterly of sampled wine consumers consumer 1 bottle usually and 9.23% consumers more than 1 bottle also.

Table 15: Preferred Indian Wine

| Preferred Wine | N   | %      |
|----------------|-----|--------|
| Dry            | 85  | 26.15  |
| Semi Dry       | 84  | 25.85  |
| Semi Sweet     | 75  | 23.08  |
| Sweet          | 21  | 6.46   |
| All of them    | 60  | 18.46  |
| Total          | 325 | 100.00 |

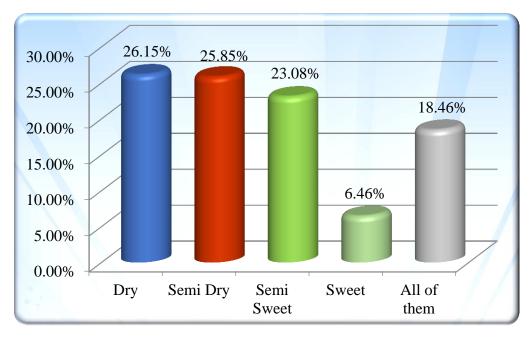


Figure 15: Preferred Indian Wine

Table 15 shows distribution according to preferred wine by the wine consumers. 26.15% consumers prefer dry wine. 25.85% prefer semi dry wine. 23.08% prefer semi sweet wine and only 6.46%

prefer sweet wine. Remaining 18.46% do not have any particular choice regarding wine they can take any type of wine whether it is dry, semi dry, semi-sweet or sweet.

Table 16: Frequency to visit wine Bar

| Frequency    | N   | %      |
|--------------|-----|--------|
| Never        | 60  | 18.46  |
| Once a Year  | 45  | 13.85  |
| Occasionally | 126 | 38.77  |
| Often        | 42  | 12.92  |
| Regularly    | 52  | 16.00  |
| Total        | 325 | 100.00 |

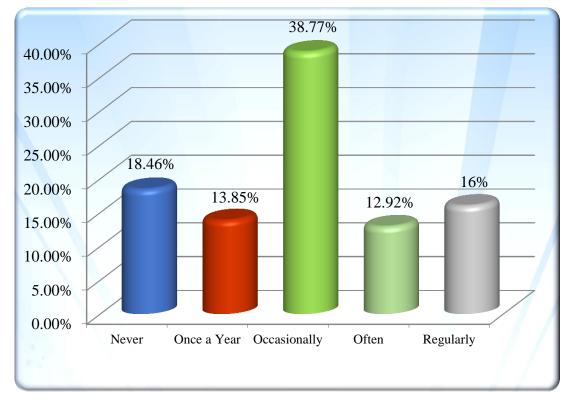


Figure 16: Frequency to visit wine Bar

Table 16 shows distribution according to frequency of visiting wine bar. From the table it can be observed that in this case also the proportion of population is spread over various frequencies. 18.46%

never consume wine in bars. 13.85% visit bar once in a year. Maximum 38.77% visit bars occasionally. 12.92% visit bar often and remaining 16% wine consumers visit bars regularly.

Table 17: Preferred color of Indian wine

| Wine color       | N   | %      |
|------------------|-----|--------|
| White            | 59  | 18.15  |
| Red              | 147 | 45.23  |
| Rose             | 47  | 14.46  |
| All of the above | 72  | 22.15  |
| Total            | 325 | 100.00 |

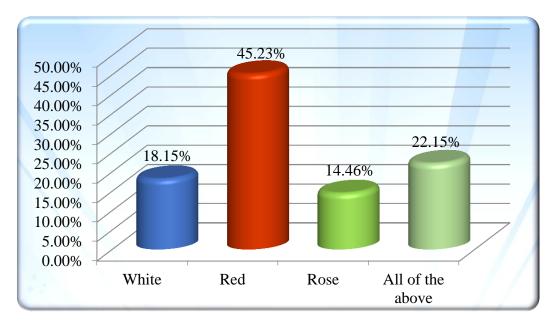


Figure 17: Preferred colour of Indian wine

As far as preferred color of wine is concerned, nearly half of the population likes red color wine. 18.15% prefer white color of wine. 14.46% like rose

color of wine and remaining 22.15% have no particular choice of wine they prefer all of the above colored wine.

Table 18: Preferred Price Range of Indian Wine (For bottle of 750 Ml)

| Price             | N   | %      |
|-------------------|-----|--------|
| Up to Rs. 700     | 46  | 14.15  |
| Rs. 700 to 1000   | 94  | 28.92  |
| Rs. 1000 to 1300  | 99  | 30.46  |
| More than Rs.1300 | 86  | 26.46  |
| Total             | 325 | 100.00 |

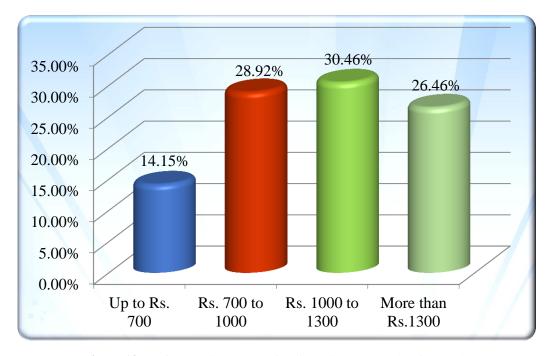


Figure 18: Preferred Price Range of Indian Wine (For bottle of 750 Ml)

Regarding preferred price range of Indian wine (for a bottle of 750 ml), 14.15% wine consumers prefer wine up to 700 Rs. 28.92% prefer wine in the range of Rs. 700 to Rs. 1000 a bottle of capacity 750ml. 30.46% prefer price of a bottle in the range of Rs. 1000 to Rs.

13000 and 26.46% prefer wine in the range of above 1300 Rs. per bottle. Thus, it can be concluded that more than 50% of wine consumers prefer wine in higher range of price.

Table 19: Preferred Closing Type of Wine

| Response       | N   | %      |
|----------------|-----|--------|
| Cork           | 120 | 36.92  |
| Plastic        | 32  | 9.85   |
| Glass          | 55  | 16.92  |
| Screw Cap      | 48  | 14.77  |
| Doesn't matter | 70  | 21.54  |
| Total          | 325 | 100.00 |

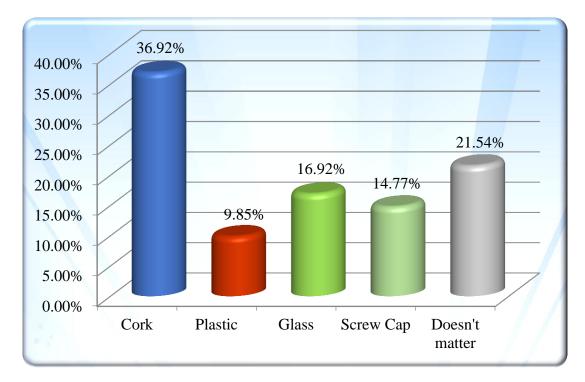


Figure 19: Preferred Closing Type of Wine

Table 19 shows distribution of wine consumers according to preferred closing type of wine. Maximum 36.92% consumers prefer cork wine, 16.92% prefer glass wine, 14.77% screw type wine, 9.85% plastic type of wine. 21.54% wine consumers can take any of the

closing type wine, it doesn't matter what type of wine it is. In the following three tables the preference of wine consumers about brand of wine and distribution of different type of wine they prefer is described.

Table 20: Prefer Indian wine brand

| Name of brand  | N   | %      |
|----------------|-----|--------|
| Sula           | 158 | 48.62  |
| Faretili       | 61  | 18.77  |
| Grover         | 44  | 13.54  |
| Chateau Indage | 29  | 8.92   |
| Four seasons   | 18  | 5.54   |
| Any Other      | 15  | 4.62   |
| Total          | 325 | 100.00 |

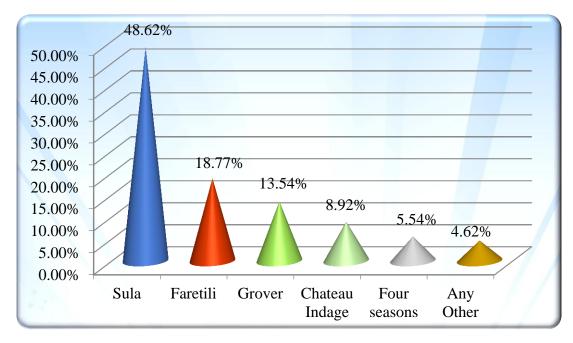


Figure 20: Best prefer Indian wine brand

Table 20 shows distribution of respondents according to prefer Indian wine brand. According to sample the most preferred brand of Indian wine is Sula with 48.62% respondents preferred it. 18.77% prefer

Faretili, 13.54% prefer Grover, 8.92% Chateau Indage, 5.54% Four seasons and remaining 4.62% prefer any type of brand.

Table 21: Favorite red grape variety

| Varieties          | N   | 0/0    |
|--------------------|-----|--------|
| Cabernet Sauvignon | 97  | 29.85  |
| Shiraz             | 85  | 26.15  |
| Zinfandel          | 58  | 17.85  |
| Merlot             | 58  | 17.85  |
| Pinot Noir         | 27  | 8.31   |
| Total              | 325 | 100.00 |

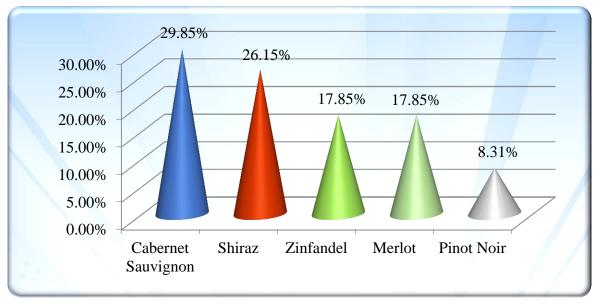


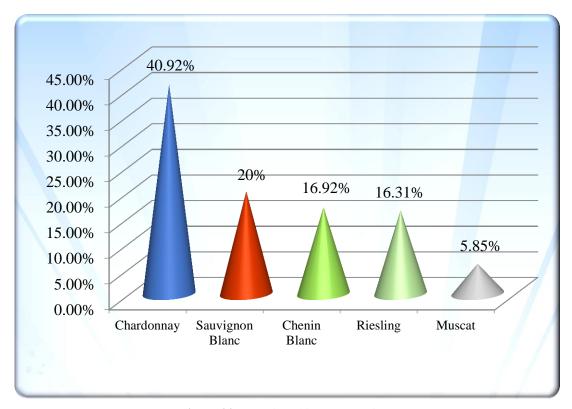
Figure 21: Favorite red grape variety

The most preferred or favourite red grape variety is Cabernet Sauvignon with 29.85% of sample respondents preferred it, 26.15% preferred Shiraz,

17.85% preferred Zinfandel and equally 17.85% Merlot and remaining 8.31% prefer Pinot Noir.

**Table 22:** Favorite white grape variety

| Varieties       | N   | %      |
|-----------------|-----|--------|
| Chardonnay      | 133 | 40.92  |
| Sauvignon Blanc | 65  | 20.00  |
| Chenin Blanc    | 55  | 16.92  |
| Riesling        | 53  | 16.31  |
| Muscat          | 19  | 5.85   |
| Total           | 325 | 100.00 |



**Figure 22:** Favorite white grape variety

The most preferred or white grape variety is Chardonnay with 40.92% of sample respondents preferred it, 20.00% preferred Sauvignon Blanc, 16.92% preferred Chenin Blanc, 16.31% Riesling and remaining 5.85% prefer Muscat.

# VII. COMPARISON OF INDIAN & IMPORTED WINE

Sampled wine consumers were asked to compare Indian wine and imported wine on twelve parameters by giving their ratings on five-point scale. The attributes were like taste, variety, packaging, brand etc. The list of attributes and comparative score for both Indian and imported wine are given in the table below –

| Wine Attributes |                   | Indiar | Indian Wine |      | Imported Wine |  |  |
|-----------------|-------------------|--------|-------------|------|---------------|--|--|
|                 |                   | Mean   | Rank        | Mean | Rank          |  |  |
| 1.              | Taste             | 3.14   | 10          | 4.17 | 7             |  |  |
| 2.              | Origin            | 3.13   | 11          | 4.27 | 4             |  |  |
| 3.              | Packaging         | 2.90   | 12          | 3.76 | 12            |  |  |
| 4.              | Price             | 3.43   | 1           | 4.10 | 10            |  |  |
| 5.              | Quality           | 3.30   | 5           | 4.22 | 6             |  |  |
| 6.              | Wine variety      | 3.32   | 3           | 4.29 | 1             |  |  |
| 7.              | Grape Variety     | 3.28   | 6           | 4.27 | 3             |  |  |
| 8.              | Wine Labelling    | 3.19   | 9           | 4.12 | 9             |  |  |
| 9.              | Colour            | 3.34   | 2           | 4.03 | 11            |  |  |
| 10.             | Brand             | 3.32   | 3           | 4.12 | 8             |  |  |
| 11.             | Reliability       | 3.26   | 8           | 4.28 | 2             |  |  |
| 12.             | Pairing with Food | 3.27   | 7           | 4.25 | 5             |  |  |

Table 23 lists different wine attributes and their scores for Indian and Imported wine according to ratings given by the wine consumers. From observing the ranks given to different attributes of Indian and Imported wines it can be concluded that the ranks do not correlate which means wine comsumers perfer centrain attributes

of Indian wine whereas other than these attributes of Imported wines are preferred by these consumers. As an example for Indian wine consumers gave high ratings to price, colour, brand, wine variety and quality. Consumers have given high ratings to these attributes for Indian wine.

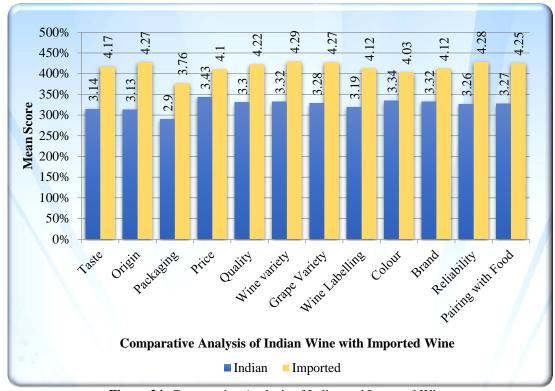


Figure 24: Comparative Analysis of Indian and Imported Wine

On the other hand in case of imported wine the high ranks were given to wine variety, reliability, grape variety, origin and paring with food.

Hence, it can be observed that ratings for different attributes for Indian and imported wine differ significantly which was further tested using rank correlation. The correlation coefficient obtained was (-0.039, p>0.05) which says that very low negative

correlation between rakings for Indian and imported wine was found for wine attributes.

### Hypothesis Testing

 $\mathbf{H}_{01}$ : There is no significant difference in the ratings given to Indian and imported wine by wine consumers

 $\mathbf{H}_{11}$ : There is a significant difference in the ratings given to Indian and imported wine by wine consumers.

**Table 25:** Test Result – Comparing Indian and Imported Wine

| Wine          | N   | Mean | SD   | T      | df  | Result |
|---------------|-----|------|------|--------|-----|--------|
| Indian Wine   | 325 | 3.24 | 0.72 | 16.70  | 648 | ***    |
| Imported Wine | 325 | 4.16 | 0.67 | -16.79 |     |        |

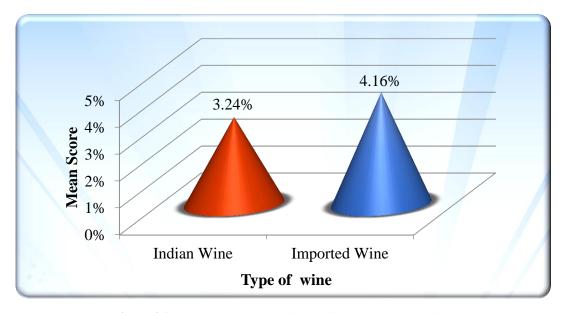


Figure 26: Test Result – Comparing Indian and Imported Wine

Wine consumers were given twelve attributes to rate Indian and imported wine. The ratings given on different wine attributes were compared later. The results are given in the table 25. The test result shows that there is highly significant difference in the ratings given to Indian and Imported wines (t = -16.79, p<0.001). Observing rating scores reveals those ratings given to imported wine are high as compared to Indian wine which clearly indicate that wine consumers consider imported wine superior to Indian wine. Thus, null hypothesis "There is no significant difference in the ratings given to Indian and imported wine by wine consumers" is rejected and alternative hypothesis is accepted. Hence it concluded that rating given to imported wine is significantly higher than the ratings given to Indian wine.

#### VIII. DISCUSSION AND CONCLUSION

Sampled wine consumers were asked to compare Indian wine and imported wine on twelve parameters by giving their ratings on five-point scale. The attributes were like taste, variety, packaging, brand etc. The analysis revealed that ranks given to attributes of Indian wine and ranks given to attributes of imported wine do not correlate. Thus, it can be said that wine consumers prefer certain attributes of Indian wine whereas other than these attributes of Imported wines are preferred by these consumers. For Indian wine, consumers gave high ratings to price, colour, brand, wine variety and quality.

On the other hand, in case of imported wine the high ranks were given to wine variety, reliability, grape variety, origin and paring with food. Thus, ratings for different attributes for Indian and imported wine differ significantly.

To compare Indian Wine and Imported Wine hypothesis "Indian wines are not as good as imported wines" following null hypothesis was framed. Wine consumers were given twelve attributes to rate Indian and imported wine. The ratings given on different wine attributes were compared later. Test result shows that there is highly significant difference in the ratings given to Indian and Imported wines. Observing rating scores reveals those ratings given to imported wine are high as compared to Indian wine which clearly indicate that wine consumers consider imported wine superior to Indian wine.

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