# Chapter - 10

**SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

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10.1 Current Scenario

The research on this topic is based on an understanding that the liquor scenario in Kerala has some important hidden facts that will go a long way for the management of self if they are explicitly stated using scientific explanation. The situation requires a great balance of mind on the part of the Governments and the people to reconcile between state welfare and welfare of the people. As seen from the literature, there are innumerable negative consequences affecting the welfare of people. On the other hand the positive side is loaded with the revenue accruing from liquor sales that gives a big hand for the Governments, with a major resource to implement welfare schemes. Without going into the morality of this conflict this research effort aims at the description and exploration of the related issues under a formal set up. This is done with the expectation that the results will be useful in the management of welfare measures in an optimal way.

10.2 Summary of Objectives of the Study

The study was mainly directed towards probing the pattern of liquor consumption among Keralites. After explicating the pattern of liquor consumption, the study gives explanations to the demographic, cultural and economic factors that influence liquor consumption habits of Keralites. The final part of the study addresses the impact of liquor consumption on mental, physical and social health.

10.3 The Summary of Design and Methodology of the Study

Kerala is a small state having 14 districts. Liquor is mainly sold through two outbound centres namely retail outlets and bar hotels and all the districts in Kerala account for both. While designing the methodology, special emphasis was given
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to draw sample from all the districts. The sample size was statistically decided to be 484 and further it was decided to fix the sample size at 500.

Initially the sample size of 500 was proportionately divided to all the 14 districts based on the population and further the sample size allotted to each district was subdivided in 60:40 proportion to retail outlets and bar hotels since the sales pattern in Kerala shows that, around 60% of the sales take place through retail outlets and the remaining through bar hotels. A validated and pretested schedule was used for data collection. 495 respondents responded to the survey and that information was taken for further analysis.

The data collected for the study were processed and analysed with the help of the computer software Microsoft EXCEL and IBM - PASW Statistics. Suitable mathematical and statistical techniques were used for drawing meaningful interpretation. The basic analyses were attempted by using percentages, average, standard deviation and other statistical summaries. The standard techniques like Loglinear Multinomial Analysis, Factor Analysis, ANOVA, MANOVA were used to analyse relative merits of the variables among different groups.

10.4 Summary of Chapters

The study is presented in ten Chapters. The first Chapter introduces the study and presents the statement of problem, objectives of the study and explain the research methodology along with the limitations of the study and the scheme of the report.

Chapter two includes the review of literature on studies on liquor consumption. It presents the status of research in the related field in India and abroad with specific reference to Kerala.
Chapter three examines a brief conceptual framework on consumer behaviour in IMFL markets and discusses the status of IMFL market in Kerala. Moreover this chapter details about the consumption habits worldwide and explains the related details under the head “Alcohol: a social evil and a source of revenue”.

Chapter four details about the alcohol consumption pattern of Keralites’. Chapter five details about the demographic factors influencing liquor consumption of Keralites. Chapter six describes about the cultural factors influencing liquor consumption of Keralites and Chapter seven details about economic factors influencing liquor consumption of Keralites. Chapter eight describes about the identification of social health, physical health and mental health related factors caused due to consumption of liquor. Chapter nine explains about the impact of drinking on social relationships and Chapter ten is the concluding chapter.

10.5 Summary of Findings
10.5.1 Summary of Sample Profile

a) The sample size was fixed to be 500, but only 495 respondents responded to the survey.

b) The mean age of the respondents were found to be 35.01 with a standard deviation of 11.33.

c) 30.5% of the respondents belonging to the young adult category constitute the majority where as elders were the minority with 20.6% representation in the sample among four classes of respondents based on age.
d) 22.3% of the respondents belong to the daily wage category which is reported to be the majority representation in the sample followed by 19.4% businessmen, 17.8% private employees, 15.6% students and finally 14.5% government employees. 10.3% of respondents are not belonging to any of these categories.

e) Majority (35.5%) of the respondents fall in the income group of Rs 5,000 to Rs 10,000 per month followed by 22% from Rs 10,000 to Rs 20,000 category. The least (10.9%) representation is from the high income group of above Rs 20,000.

f) 54.5% of the respondents participated in the survey were Hindus, followed by 24% Christians and 21.4% Muslims.

g) Of those people who had revealed their caste, 45.9% belongs to OBC category followed by 40.7% from forward caste and the remaining 13.4% from SC/ST.

h) The mean numbers of dependent family members of the respondents were reported to be 2.84 with a standard deviation of 2.24.

i) The average number of children for the respondents was reported to be two, with a standard deviation of 1.30.

j) Majority (46.9%) of the respondents were educated below pre-degree or +2 and there are about 25.3% of post graduate respondents followed by 16.2% graduates. 11.7% of the respondents were technically qualified.

k) Majority (59.6%) of the respondents were married as against 40.4% single.
10.5.2 Pattern of Drinking

a) Alcoholic Beverage Preferences

i. 39% of the respondents say that brandy is their first preference followed by rum 22.2%. Whisky accounts for 18.4% and 12.3% by whites.

b) Mostly Consumed Alcoholic Beverage

i. But when it comes to the case of consumption, 35.2% of the respondents mostly consume brandy followed by 31.7% rum. Brandy and rum accounts for around 67% of the alcoholic beverages totally consumed by the respondents.

ii. If we take the preference and actual consumption of brandy, it can be found that only 82.9% of the respondents who prefer to drink brandy are actually consuming that variety and it is concerning that around 17.1% of the respondents are shifting to other varieties which are comparatively less costly than brandy.

iii. Of the respondents who prefer to drink whisky, 73.3% drinks the same and 13.3% switched to brandy and the rest 13.3% switches to rum which are the varieties comparatively less costly than whisky.

iv. It can be generally concluded that, preferences is mainly confined to high cost varieties and it is apparently proved that, when it comes to the case of actual consumption, people shift to low cost varieties.
c) Quantum of Consumption

i. It may be observed that 42.7% of the respondents are heavy drinkers, 35.2% are moderate drinkers and the minority (22.1%) are low drinkers.

ii. 63.9% of the total drinkers in Palakkad are heavy drinkers followed by 61.1% from Idukki district and 60.8% from Thiruvananthapuram. Heavy drinkers are very low in Kasargode district (6.3%) followed by Kannur District (26.3%).

iii. Instead of using the traditional chi square test, Loglinear model is used in this study to check the significance of relationship between variables. Loglinear models adopt a more formal approach that relies on Maximum Likelihood estimation and Likelihood Ratio test (LR). The random variable representing the cell counts is assumed to be having a Multinomial distribution and use more powerful LR tests for independence. The above explained relationship between districts and type of drinkers was tested using Loglinear Multinomial Model and was found to be significant at 5% level.

d) Frequency of Drinking

i. The people who drink more frequently were found in districts Idukki and Ernakulam.

ii. Out of the people who drink in Idukki district, 33.3% drinks daily and 27.8% drinks three to five days a week.
iii. In Ernakulam district, 32.7% of the drinkers drinks daily and 22.4% drink three to five days a week.

iv. The daily drinking phenomena was found to be low in Thiruvananthapuram district (7.8%).

v. 41.7% of the total drinkers in Kerala drinks more than three days a week against 58.3% who drinks less than three days a week.

vi. More than 50% of the drinkers belonging to Pathanamthitta, Idukki, Ernakulam, Malappuram and Kasargode drinks more than three days a week.

vii. 51% of people who drink more than three days a week are heavy drinkers. 36.3% of those people, who consume alcoholic beverages less than three days a week, are heavy drinkers.

viii. The relationship between frequency of drinking and type of drinkers was found to be significant at 5% level.

e) Food Intake and Alcohol Consumption

i. 92.5% of the drinkers used to take non-vegetarian food along with alcoholic drinks and there are only 7.6% of respondents who take vegetarian food along with alcoholic drinks.

f) Style of Drinking – Gulping

i. 67.3% of Keralite drinkers have got the habit of taking alcoholic beverages sip by sip and on the contrary, 32.7% of the respondents gulp while drinking.
ii. Of those people who are low drinkers, 78.1% are taking alcoholic drinks sip by sip and majorities (58.9%) of heavy drinkers are also taking their drinks sip by sip. It can be concluded that there is dependence between style of drinking and type of drinkers since Loglinear multinomial model was significant at 5% level of significance.

iii. For whisky, brandy, rum, whites (IMFL category) and beer, the main drinking style attributed is sip by sip drinking. 66.7% of toddy drinkers and 75% of country liquor drinkers are gulp drinkers against the minority sip by sip drinkers (33.3% and 25% respectively). There is dependence between style of drinking and category of liquor consumed since the relationship was significant at 5% level of significance.

g) Style of Drinking – Diluting

i. A majority of drinkers (87.9%) are accustomed to adding fillers with their drinks.

ii. 93.2% of the low drinkers prefer to drink by adding fillers. 93% of moderate drinkers choose to add fillers to their drinks. But 10.4% of heavy drinkers drink without adding any kind of fillers. There is relationship between style of drinking - diluting and type of drinkers because the relationships were significant at 5% level of significance.
h) Place of Drinking

i. Around 50% of respondents consume their drinks from bars. 17.6% of drinkers drink at streets or other lonely places and 13.6% of people say that they drink at home.

ii. 55.2% of people who are taking alcoholic drinks from bar are drinking less than three days in a week as compared to 44.8% who take drinks more frequently. 50.6% of people who are drinking at lonely places are frequent drinkers who consumes more than three days a week. There is relationship between places of drinking - frequency of drinkers since the relationship was significant at 5% level of significance.

i) Time of Drinking

i. 90.7% of the respondents in Kerala prefer to drink in the evening. But there are 8.1% of the respondents who drink in the morning itself.

ii. Majority (72.5%) of drinkers who consumes in the morning are heavy drinkers.

j) Reasons for Drinking

i. 62.2% of the drinkers are taking drinks without any reason and 4% says that they drink because it is a part of their profession. 29.7% feels that they drink whenever they feel happy and 18.2% says that they drink whenever they feel sad.

ii. Of the category who says they don’t have any reason to drink, 45% i.e. the majority are heavy drinkers.
iii. Those people who are engaged with business say that they drink as a part of their profession (35%) followed by respondents from private occupation background (25%).

### 10.5.3 Demographic pattern of drinking

a) Outlet Venue Preferences among Different Age Groups

i. 29.1% of young adults are approaching retail outlets for the consumption of liquor followed by 27.7% young adolescent.

ii. 32.7% of young adults are approaching bar hotels for the consumption of liquor followed by 24.6% from middle aged.

iii. It can be inferred that more than 50% of the drinkers are below 35 years of age. The above relationship between age and drinking from different sales channels was not found to be significant at 5% level of significance.

b) Liquor Category Preferences among Different Age Groups

i. 34.7% young adolescents are mainly attributed towards drinking brandy category of liquor. 37.9% of young adults usually consumes rum category and 45.5% middle aged drinkers are more attributed to drinking of brandy. Among the elder drinkers majority (38.2%) are attracted towards drinking rum.

ii. As compared to whites, rum has the highest preference while brandy and whisky follow in order.
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iii. As compared to elders the young adolescents and young adults are more in consumption and the middle aged follow them. Drinking is seen to be more dominant among youngsters.

iv. Young adults are seen to be more attracted towards whisky. Adolescent young and middle aged comes in order to elders.

v. Brandy is seen to go more with adolescent young and young adults in order compared with elders significantly.

vi. Middle aged is seen to be not significantly different from elders. Considering rum, it is seen that young adolescents are followed by middle aged and then by young adults compared to elders, significantly.

vii. All the above relationships between age and category of liquor consumed were tested and the relationship was found to be significant at 5% level of significance.

c) Type of Drinkers among Different Age Groups

i. 42.4% of young adolescent group falls in the heavy drinking category followed by 33.1% in moderate and another 24.6% under low drinking category. Young population in Kerala is inclined towards heavy drinking.

ii. 41.7% of young adults are heavy drinkers followed by 35.4% moderate drinkers. Low drinkers are found to be the lowest (22.9%) in percentage under young adult category.
iii. The pattern is not different for the other age classes too. All mainly attributed for the heavy drinking.

iv. All the above relationship between age and category of liquor was found to be not significant at 5% level of significance.

d) Drinking Frequency among Different Age Groups

i. Majority of young adolescent, young adult and middle aged drinkers consumes liquor less than three days a week.

v. Majority (53.1%) of elders drink more than three days a week. The relationship between age and frequency of drinking was tested and was found to be significant at 5% level of significance.

e) Drinking Place Preferences among Different Age Groups

i. Majority of the respondents belonging to all age groups depend on bars to consume alcoholic beverages.

ii. Middle aged and elder drinkers in Kerala are mainly depending on bars for the consumption of liquor as compared to other groups.

iii. The pattern of drinking inside home is seen mainly in middle aged and elder drinkers. Out of the total people surveyed, 13.6% of people had the habit of consuming liquor inside their house.

iv. All the relationship between age and place of drinking was tested and was found to be significant at 5% level of significance.
f) Drinking Time Preferences among Different Age Groups
   i. Majority of the people who drink in the morning is from the young adolescent group. The survey of literature reveals that majority of people who have the habit of drinking in the morning does so, to steady their nerves which were under fatigue because of previous days drinking and the same pattern is attributed to heavy harmful drinking.

g) Reasons for Drinking among Different Age Groups
   i. As there are several reasons for drinking, “No reason for drinking” is the predominant one.
   ii. Young adults stand on the majority side with 33.1% who says that they don’t have any reasons to drink. Even though less in percentage, other age groups have a stake in saying “no reasons for drinking”.
   iii. This shows that drinking has now become a habitual act in Keralites’ life.

h) Age at First Drink
   i. The mean age at which a Keralite starts drinking is 21.1 years with a standard deviation of 5.07.
   ii. The maximum age reported for the started drink in Kerala is 45 years and the minimum is 8 years and the range was found out to be 37.

i) Type of Liquor Consumed District Wise
   i. Alappuzha, Idukki, Ernakulam, Trissur, Palakkad, Kannur and Kasargode accounts for brandy consumption to the majority as compared to other liquor variety.
ii. Thiruvananthapuram and Pathanamthitta districts top the order for the consumption of both brandy and rum category.

iii. Kollam, Kottayam, Malappuram and Wayanad accounts for maximum rum consumption. Wayanad is the only district in Kerala, where whisky consumption was found to be at top along with rum category.

iv. All the relationship between districts and category of liquor consumed was tested by using Loglinear multinomial model and was found to be significant at 5% level of significance.

j) District Wise Preferences for Place of Liquor Consumption

i. Bar accounts for the main venue of liquor consumption in all the districts in Kerala. Idukki and Palakkad accounts for the maximum street drinkers.

ii. In the district of Idukki, 50% of the respondents are taking drinks from street or other lonely places followed by 43.9% from Palakkad.

iii. When home drinking is concerned, Trissur ranks first followed by Kollam and then by Ernakulam.

iv. All the relationship between districts and place chosen for drinking was tested by using Loglinear multinomial model and was found to be significant at 5% level of significance.

k) Morning Drinking Pattern in Districts

i. Majority of morning drinkers were found in three districts namely Idukki, Ernakulam and Palakkad. These three districts jointly contribute 45% of the total morning drinkers.
l) District Wise Average Age of First Drink
   i. The mean drinking age of a Keralite at the time of his first drink was reported to be 21.1 years with a related standard deviation of 5.07.
   
i.ii. The lowest age was reported for districts like Kasargode (18.58 years) and Pathanamthitta (18.63 years). The mean age of first drink is maximum (22.82 years) for Thiruvananthapuram district.
   
i.iii. ANOVA was found to be significant at 5% level to state that there is significant difference in the mean age reported in different districts.

m) Marital Status and Liquor Consumption
   i. Married people show predominance in the consumption of whisky, brandy, rum and whites as compared to unmarried respondents. High rate of beer consumption can be attributed to unmarried respondents.
   
i.ii. The relationship between marital status and variety of liquor consumed was tested and was found to be significant at 5% level of significance.
   
i.iii. 43.9% of the married respondents are heavy drinkers. There are 40.9% of heavy drinkers among unmarried respondents. The relationship between marital status and type of consumption was found to be not significant at 5% level of significance.
   
i.iv. 70.2% of unmarried people drinks less than three days a week. 49.8% of the married drinkers drink more than three days in a week in comparison to 50.2% drinkers who used to consume less than three
days in a week. The relationship between marital status and drinking frequency was found to be significant at 5% level of significance.

v. 19.3% of married people used to consume liquor inside their home as against 5.1% unmarried category. Street drinking was apparently found more among unmarried people. 19.7% of unmarried drinkers are street drinkers as against 16.3% from married category of drinkers. The relationship was significant at 5% significance level.

n) Education and Liquor Consumption

i. Rum is the mostly consumed brand of people belonging to the lower education strata. 48.1% of people who are educated below pre degree consume rum followed by 33.8% brandy.

ii. Among technically qualified people, 45.6% are taking brandy followed by 38.2% from post graduates and finally 37.5% from graduates. The relationship was found to be significant since p<0.05.

vi. Majority of drinkers who drink more than three days in a week are people educated below +2 or pre-degree. Post graduates constitute 19.2% of drinkers who drink more than three days in a week and 29.2% of drinkers who drink less than three days a week. The relationship was significant at 5% significance level.

vii. People belonging to all educational groups mainly depend on bar hotels for the consumption of liquor. Street drinkers are maximum for the less educated group (25.5%). It can be explicitly said that,
street drinking is found very low when the education level increases. The relationship was significant at 5% significance level.

viii. The mean initiation age was found to be very low for graduates and the less educated group. That was reported to be 20.4 years with a standard deviation of 5.52 for less educated group and 20.73 years with a standard deviation of 4.1 for graduates. ANOVA was found to be significant at 5% level of significance.

O) Occupation and Liquor Consumption

i. Government employees mainly consume whisky which accounts for 26.5% of total whisky consumption followed by business people.

ii. The least whisky consumption is made by the working class people. Brandy is mainly consumed by the business class (26%) followed by employees of private sector (22.5%).

iii. 41.4% of rum consumption is covered by people who are earning their daily wages followed by employees from the private sector (14.6%).

iv. Beer is mainly consumed by the student community and employees from the private sector. Whites are becoming the favourite brand for students with 27.3% consumption. The relationship between occupation and liquor preferences was found to be significant at 5% level of significance.

v. Low drinking is the predominant character found in the student community. Low drinking was found to be lowest for daily wages
class. If we take the category of heavy drinkers, majority are constituted by people belonging to daily wage category followed by business class people. The relationship was found to be significant at 5% level of significance.

p) Occupation and Frequency of Drinking

i. Majority of Government employees, private employees, business men and students community drinks less than three days a week. But the drinking frequency is high among people belonging to daily wages class. The relationship was found to be significant at 5% level of significance.

q) Occupation and Place of Drinking

i. Majority of people belonging to all occupational groups are depending mainly on bar hotels for the consumption of liquor. Home drinking is found more for government employees. For privately employed group, bar hotels are the main destinations for drinking. The student community is mainly depending on bar hotels even though the main source of purchase is from retail outlets. That means, if the liquor is purchased from retail outlets, it is not consumed there itself. They will be consuming it from different venues. But for bar hotels the purchase and consumption is at the same place.

ii. 35.5% of people who confines to daily wages group are practicing street drinking. The aforesaid relationships are significant at 5% level of significance.
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iii. Majority of the morning drinkers are from daily wage category. Out of the total morning drinkers 30% are from daily wages category followed by 27.5% from students.

10.5.4 Cultural Factors and Liquor Consumption

a) Liquor Category Preferences among Religious Groups

i. 40.1% of the Hindus mostly consume rum than any other category followed by brandy (36.9%) and the least preference was given to whites in the IMFL segment. Brandy (28.2%) seems to be the category which is consumed mostly by Christians followed by rum (27.2%). For Muslims, brandy constitutes the majority (30.8%) followed by rum (24%).

ii. Consumption of whites (colorless liquor like vodka, white rum etc) is slowly becoming the trend and mainly consumed by Hindus. But Muslims are consuming it more than Christians does. The statistical significance of the above said relationships were tested with, Loglinear Multinomial Model test and found to be significant at 5% level of significance.

b) Liquor Consumption Place Preferences among Religious Groups

i. Bar is the major drinking base for people belonging to all religion, since it is a legally acceptable place for consuming liquor. 22.7% of the Hindu drinkers depend on street and other lonely places for drinking, while around 11% of drinkers from Christianity and Islam also follows the same.
ii. Home drinking is found predominant among Christians with 21.8% of the total Christian drinkers drinking at home while it is comparatively low for Hindus (13.4%) and very low for Muslims (4.8%). The statistical significance of the above said relationships were found to be significant at 5% level of significance.

c) Drink Initiation Age among Religious Groups

i. It was observed that Muslims start their drinking in an early age than people from other religion do. The mean initiation age for Muslims was found to be 20.71 years with a standard deviation of 4.3 followed by Christians (Mean = 20.8, std dev = 4.5) and finally by Hindus (Mean = 21.39, std dev = 5.5).

ii. The minimum initiation age for Muslims and Christians was recorded to be 8 years and that for Hindus is 10 years. ANOVA was attempted in order to check the statistical significance of the variations found in the mean age and was found not significant at 5% level of significance.

d) Socio-cultural Restrictions for Drinking among Religious Groups

i. Among Hindu drinkers, 89.9% feel that they haven’t felt any kind of socio-cultural restrictions as against 10.1% says they do. The same kind of feeling is shared by Christians also. 83.2% don’t feel that socio-cultural restrictions are there against alcohol consumption. But for the Muslim drinkers, pattern is quite different. 59.5% feel that they do have socio-cultural restrictions
for consuming alcoholic drinks. The aforesaid relationship is significant at 5% level of significance.

e) Religion and Home Drinking

i. Lady drinking was found to be highest in Christianity with 21.2% and found to be lowest for Muslim community (4.9%). It can be observed that, 8.3% of Hindus drinkers’ co drinks with the spouse when drinking inside home.

ii. Drinking along with children was found more in Muslim community (2.4%) followed by Christians and then by Hindus. Majority from all the religion drinks alone at their houses. The statistical significance of the above said relationships was found to be significant at 5% level of significance.

f) Liquor Consumption among Caste Groups

i. 50.3% of the respondents were reluctant to disclose the caste which they belongs. 46.9% of forward caste drinkers are heavy drinkers against 16.3% low drinkers. In the OBC category majority (42.2%) are moderate drinkers followed by low drinkers (31.2%) and finally by heavy drinkers (26.6%). In SC/ST category majority are heavy drinkers (39.5%) followed by moderate and then by low drinkers. The relationship between caste and the type of drinkers was found to be significant at 5% level by using Loglinear multinomial model.
ii. Majority (43.8%) of the people who drink in the morning belongs to OBC category, 37.5% of the morning drinkers belong to forward class and the least representation is from SC/ST category (18.8%).

g) Family Drinking

i. 48.5% of respondents claimed that their siblings are also drinkers. This caters to the majority followed by father drinkers (45.3%), son (6.5%), wife (6.1%) and the rest. Lady drinking is slowly catching up and evidence was reported in this study by people saying that their mother and wife are consuming alcoholic drinks. There are only 29.7% respondents says that they are the single drinker in their family.

10.5.5 Economic Factors and Drinking

a) Drink Initiation Age among Income Groups

i. People belonging to low income group had a higher chance of taking the first drink in earlier age as compared to drinkers of other groups. The mean initiation age of people who falls below Rs 5,000 income group was found to be the lowest (mean = 19.80, std dev = 4.61). The results for the rest of the group were found to be much higher and near the average initiation age (mean=21.1, std.dev=5.07) for the whole sample. One way ANOVA was conducted to check the significance of variations and found to be significant at 5% level of significance.
b) Outlet Preferences among Income Groups

i. It can be learned from the two way table that majority of the people belonging to all income group except those people whose monetary inflow is greater than Rs 20,000, depends mainly on retail outlets for the consumption of liquor.

ii. If the venue preference of high income group is concerned, it can be observed that majority (63%) prefer to drink from bar hotels than buying from retail outlets. Loglinear Multinomial Model was found to be significant at 5% level to prove the significance of the above said relationships.

c) Liquor Category Preferences among Income Groups

i. About 53.6% of low income drinkers are consuming rum followed by brandy (24.6%). More than 50% are coming under rum category and the reason may be due to rum accounting for the maximum low cost brand of liquor.

ii. For those people who fall in the income group of Rs 5,000-Rs 10,000, the preference for brandy is slowly increasing as compared to the previous case. There is only marginal difference between rum and brandy consumption. Rum occupies the top position with 40% drinkers followed by brandy with 37.2%.

iii. People belonging to the income group of Rs 10,000-Rs 15,000 consume more of brandy than rum. Brandy accounts for 40.7% of total consumption in that income slab followed by 30.8% rum.
Remarkable increase in the consumption of whites was also observed (16.5%).

iv. The dominance played by rum is further decreasing in the income slab of Rs 15,000-Rs 20,000. Brandy tops the order with 54.9% followed by rum and whisky. Brandy alone occupies more than 50% of the share.

v. If the high income group (> Rs 20,000 per month) is considered, brandy still occupies the top position with 43.2% followed by whisky (29.5%). The consumption of whites has increased and reached the topmost position in its category with 18.2%.

vi. Generally it can be explicitly concluded that rum can be equated as the preferred category of low income group, brandy and whisky attributed to mid income and high income group as well.

vii. To prove the statistical significance of all the above explained relationships, a Loglinear Multinomial Model test was attempted and the result was found to be significant at 5% level of significance.

d) Morning Drinking Habits among Income Groups

i. 41.4% of the morning drinkers belong to less than Rs 5,000 income category followed by another 27.6% from Rs 5,000-Rs 10,000 category. It can also be observed that morning drinking percentage falls when we move across to high income groups.
e) Spending on Liquor among Different Classes of Occupation

i. Majority of the government employees spent around Rs 150 to Rs 200 per sitting. Around 22.5% of government employees are costly drinkers, since they spent Rs 300 to Rs 400 per sitting. It is also to be noted that around 39% of government employees drink more than three days in a week.

ii. Majority (33.1%) of people employed in the private organized and unorganized sectors spends around Rs 100 to Rs 150 per sitting. When business people are concerned, majority (29.3%) spends around Rs 200 to Rs 300 per sitting for consuming liquor. There are about 19.6% of high cost drinkers among business people, who spends more than Rs 400 per sitting for consuming liquor.

iii. Majority (29.6%) of students spent around Rs 100 to Rs 150 per sitting for consuming liquor.

iv. Majority (67.8%) of people belonging to the daily wages class spends less than Rs 150 per sitting for consuming liquor. This particular class of people is supposed to be earning low, but frequency and quantum of consumption is high.

v. The test was found to be significant at 5% level to prove the significance of all the above explanations in this category.
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f) Pattern of Spending on Liquor among Income Groups

i. Majority (43.2%) of people, who are earning below Rs 5,000 spends less that Rs 100 per sitting. There are about 25.9% from the same income group who spend in between Rs 100 to Rs 150. Majority (39.5%) of people who are earning between Rs 5,000-Rs 10,000, spent around Rs 100 to Rs 150.

ii. When the income of the people increases little more to Rs 10,000-Rs 15,000, majority (31.1%) spends around Rs 150 to Rs 200 per sitting and if we move along to higher income groups, a relative shift can be observed in their spending on liquor per sitting. The Loglinear Multinomial Model test was found to be significant at 5% level to prove the significance of all the above explanations.

g) Reason for Drinking and Spending on Liquor

i. Low income groups are in majority who drinks without any reasons. 52.6% of the drinkers who are having no reasons for drinking fall under the income group below Rs 10,000.

h) Liquor Category and Spending

i. It can be observed that, of those people who spend less than Rs 100 per sitting are more confined to drink rum. That means 49.4% of drinkers used to consume rum by paying less than Rs 100 per sitting followed by 33.3% brandy.
ii. 42.5% of people who spend Rs 100 to Rs 150 per sitting are attributed towards drinking rum followed by another 36.3% brandy. 36.3% of people who drink by spending Rs 150 to Rs 200 are mainly confined to drink brandy followed by rum (32.2%).

iii. In the spending category of Rs 200 to Rs 300, brandy accounts for majority (33.7%) consumption followed by rum and whisky.

iii. When spending on liquor increases, the number of people who consume whisky also increases and reaches the number one position in the category of people who spends more than Rs 400 per sitting. The Loglinear Multinomial Model test was found to be significant at 5% level to prove the significance of all the above explanations.

i) Spending on Liquor among Caste Groups

i. Majority of those who are spending more than Rs 200 per sitting for the consumption of liquor are from the forward caste. 50% of drinkers who are spending more than Rs 400 per sitting for the consumption of liquor are also from the forward caste.

ii. The concentration of OBC drinkers were found in the group spending less than Rs 200 per sitting. The concentration of OBC drinkers gets declined when spending on liquor consumption is increasing.

iii. It can be concluded that OBC drinkers are less expensive drinkers as compared to forward caste drinkers. The test was found to be
significant at 5% level to prove the significance of all the above explanations in this category.

j) Spending on Liquor among Age Groups

i. Elders are in majority who spent Rs 100 or below for consuming liquor per sitting. But when the case of people who spend between Rs 100 to Rs 150 is taken into consideration, young adolescent are in majority (33.6%) followed by young adult.

ii. Young adult occupies the major share among people who are spending around Rs 150 to Rs 200 for liquor consumption. Middle aged people are mainly seen in the group of people who spent more than Rs 300 for liquor consumption per sitting. The test was found to be significant at 5% level of significance.

10.5.6 Identification of Effects of Drinking

Factor analysis was used to derive the consequent factors arise because of consumption of liquor on social, mental and physical health of people. Altogether ten main factors were identified based on the common thread seen among the statements in each group appropriate names were suggested after discussion with experts are as follows.

i. Self Degradation

ii. Distancing From Dear And Near

iii. Obsession

iv. Socialization

v. Guilty Consciousness
vi. Health Worries
vii. Self Deception
viii. Nuisance
ix. Reluctance for Rehabilitation/ De-addiction
x. Awareness Problems

These identified factors were further classified into factors related to Social Health, Physical Health and Mental Health. Factor scores were generated for identification of factors and to use them under a data reduction framework. It is observed that the factors “Self Degradation”, “Distancing from Dear and Near”, “Obsession”, “Socialization” and “Nuisance” are related to “Social Health” of the drinker. “Health Worries”, “Self Deception” and “Awareness Problems” may be considered as related to “Physical Health” of the drinker and “Guilty Consciousness” and “Reluctance for Rehabilitation/De-addiction” may refer to “Mental Health” of the drinker.

10.5.7 Consequences on Social, Physical and Mental Health

a) Effect of Liquor Consumption on Social Health

i. Variables such as “Self Degradation”, “Distancing from dear and near”, “Obsession”, “Socialization” and “Nuisance” are considered for analysis under the head “Social Health”.

ii. Heavy drinkers’ Social Health is worse than other type of drinkers and it can also be observed that people’s Social Health is subject of serious aftermath when a drinker transforms from a normal drinker to a heavy drinker.
iii. It is also observed that, the mean score of Nuisance is low for a normal drinker as compared to moderate and heavy drinker. This shows that, the more a person drinks, the more nuisances he will be to the society.

iv. It can be observed that, the average values pertaining to the Social Health variables are higher for more frequent drinkers as compared to less frequent drinkers. Moreover the average values for more frequent drinkers are greater than that of the overall averages.

v. In all the cases H0 is rejected as all the statistics are significant at 5% level from the MANOVA framework.

vi. It is observed that there is significant difference among the mean scores of Self Degradation, Socialization and Nuisance between low drinkers and heavy drinkers (p<0.05). No difference was observed between moderate and heavy drinkers for all Social Health variables since p<0.05.

vii. The mean values for all the Social Health factors for more frequent drinkers was found to be greater than less frequent drinkers. It is proved that Social Health is more baffling for those people who drink more than three days a week as compared to less frequent drinkers. The variations found with respect to Social Health factors are significant at 5% level of significance.
b) Effect of Liquor Consumption on Physical Health

i. Physical Health factors are originated by combining the effects of separate factors such as Health Worries, Self Deception and Awareness Problems.

ii. The mean score for ‘Health Worries’ was found to be low for low drinkers as compared to moderate and heavy drinkers. For all the Physical Health factors, the mean score was found to be higher for heavy drinkers and moreover it is greater than the overall average score too. All the statistics are found to be significant at 5% level of significance.

iii. The mean score for all the Physical Health factors was found to be higher for more frequent drinkers as compared to less frequent drinkers. All the statistics are found to be significant at 5% level of significance.

iv. Physical Health factors become highly convoluted when drinking frequency and quantum of drinking are increased.

v. The factor ‘Self Deception’ intensifies when one person moves from low drinking to heavy drinking and Health Worries and Awareness Problem will be attached to drinking liquor irrespective of the type of drinking. Statistics was found to be significant only for Self Deception at 5% level of significance in the univariate analysis.

vi. The degree of hammering of problems of Health Worries, Self Deception and Awareness Problems will be more or less same for a
moderate drinker and a heavy drinker since the statistics was found not to be significant at 5% level of significance.

vii. It can be said that, Physical Health will become worse, if a less frequent drinker transforms to a more frequent drinker. All the mean scores were found to be significant at 5% level of significance.

c) Effect of Liquor Consumption on Mental Health

i. Mental Health factors are originated by combining the effects of separate factors such as Reluctance for Rehabilitation/De-addiction and Guilty Consciousness.

ii. The mean score relating to Reluctance for Rehabilitation/De-addiction is high (mean 7.56, std dev = 1.62) for low drinkers and low (mean 7.32, std dev = 1.67) for heavy drinkers. Since it is the reluctance score, we can interpret that, when we move from low drinkers to heavy drinkers, the reluctance for de-addiction and rehabilitation increases.

iii. Drinking related Guilty Consciousness is high (mean 8.67, std dev = 3.37) for heavy drinkers as compared to moderate and low drinkers. From the scoring pattern it can be empathized that drinking related guilty consciousness is haunting heavy drinkers more.

iv. Reluctance for Rehabilitation/De-addiction score is high (mean 7.71, std dev = 1.56) for less frequent drinkers as compared to more frequent drinkers. It can be interpreted that, resistance to
rehabilitation is low for less frequent drinkers as compared to more frequent drinkers. But in the case of Guilty Consciousness, it was found high for less frequent drinkers when compared with more frequent drinkers. All the statistics explained above in this category are found to be significant at 5% level of significance.

v. The variation in Mental Health problems found among type of drinkers and frequency of drinking are found to be significant and claimed to be intense for ‘heavy drinkers’ and more frequent drinkers. There exist significant variations of Mental Health factor scores among different type of drinkers and different frequency of drinking. All together it can be concluded that, Mental Health factors become highly sophisticated when drinking frequency and quantum of drinking are increased.

vi. The Mental Health variations of low drinkers versus heavy drinkers and moderate drinkers versus heavy drinkers are considered, none of the mean values are found to be significant at 5% level of significance. Thus it can be said that, Mental Health problems will be attached to liquor consumption irrespective of the type of drinking and frequency of drinking.

vii. It is observed that significant variation exists in the case of Reluctance for Rehabilitation/De-addiction alone at 5% level of
significance. The variation observed in the case of Guilty Consciousness was found not to be significant (p>0.05).

viii. It can be articulated that, de-addiction possibilities will become worse, if a less frequent drinker transforms to a more frequent drinker and moreover the feeling of guilt will haunt a drinker for his life time irrespective of the frequency of one’s drinking.

10.7 Conclusions

From the findings explained initially in this chapter, the following conclusions may be drawn.

Keralites mainly prefer to drink brandy followed by rum, whisky and whites. But when it comes to the case of consumption, rum and brandy tops the order. KSBC reports says that, there has been an increase in the consumption of brandy in the last fiscal which is highly supported by this study. The preference – actual consumption gap is created because of the inability of the drinker to pay high for his preferred drink. Thus he compromises and shifts to relatively cheaper category or brand. When it comes to the case of quantum of consumption, majority of Keralites are heavy drinkers, but the frequency of drinking of the majority, is less than three days a week. Even though the frequency of drinking is less, the intake per sitting is heavy. It is interesting to note that majority of the drinkers are non vegetarians. That means in Kerala, vegetarian drinkers are very less in number. Sip by sip drinking is the predominant style of drinking in Kerala, but gulp drinking is also preferred by Keralites but only by a minority. The
people who drink more frequently were found in districts like Idukki and Ernakulam.

Bars are the most sought after place for drinking for Keralites even though the sales are more through retail outlets. But street drinkers are also found and should be considered along with the fact that majority of the street drinkers are frequent drinkers that may result in serious law and order problems. Drinking inside home is preferred by a group of people and can be concluded that, this style is now not considered as a social taboo by some in Kerala. Majorities prefers to drink in the evening and are using fillers (water, soda, cola etc) with liquor before consumption. Majority of the drinkers don’t have any reason to point out for drinking. This shows that drinking has become a part of Keralites’ habit. Of those people, who does not have any reason to drink are heavy drinkers. All these facts point out that drinking has become more or less habitual.

Majority of the drinkers in Kerala are below 35 years of age and people belonging to young adolescents would like to drink brandy the most. The elder drinkers in Kerala are attributed to drink rum. As compared to whites, rum has the highest preference while brandy and whisky follow in order. Drinking is seen to be more dominant among youngsters in Kerala and majority of the young adolescents are heavy drinkers. The pattern is not different for the other age classes too. All mainly attributed for the heavy drinking. The pattern of drinking inside home is seen mainly in middle aged and elder drinkers. When home drinking is concerned, Trissur ranks first followed by Kollam and then by Ernakulam.
The mean age at which a Keralite starts drinking is 21.1 years. The lowest age was reported in the district of Kasargode and the highest for Thiruvananthapuram district. Married people consume drinks inside the home more frequently than unmarried people. Street drinking is seen more for unmarried category, thus becoming a threat to the society.

When different varieties of liquor are considered, whisky is mainly consumed by government employees; but brandy is mainly consumed by business class and rum by the daily wages class. Majority of people belonging to all occupational groups are depending mainly on bar hotels for the consumption of liquor. Home drinking is found more for government employees. For privately employed group, bar hotels are the main destinations for drinking. The drinking pattern of student community is mainly depending on bar hotels even though the main source of purchase is from retail outlets.

Hindus mainly consumes rum, but brandy is mostly consumed by Christians and Muslims. Home drinking was found to be predominant among Christians as compared to other religions. It was observed that Muslims start their drinking in an early age than people from other religion do. Majority of the Hindu and Christian drinkers feel that they haven’t felt any kind of socio-cultural restrictions against drinking, but majority of the Muslim drinkers told that they have socio-cultural restrictions for consuming liquor, but still they consumes irrespective of these restrictions. Lady drinking was found to be highest in Christianity and found to be lowest for Muslim community. Majority claims that their siblings are also drinkers and a few admits that their mother and wife consumes liquor.
Majority of the people belonging to all income groups except those people, whose monetary inflow is greater than Rs 20,000 per month, depends mainly on retail outlets for the consumption of liquor. High income group prefer to drink from bar hotels. Low income drinkers are consuming rum followed by brandy. Generally it can be explicitly concluded that rum can be equated as the preferred category of low income group, brandy and whisky attributed to mid income and high income group as well.

Majority of the government employees spend around Rs 150 to Rs 200 per sitting but majority of people employed in the private organized and unorganized sectors spends around Rs 100 to Rs 150 per sitting. When business people are concerned, majority (29.3%) spends around Rs 200 to Rs 300 per sitting. On the other hand majority of students spent around Rs 100 to Rs 150 per sitting for consuming liquor even though they may not be having a fixed source of income. It can be observed that, of those people who spend less than Rs 100 per sitting are more confined to drink rum. When spending on liquor increases, the number of people who consume whisky also increases.

Factor analysis was used to derive the consequent factors which arise because of consumption of liquor on Social, Mental and Physical Health of Keralites. Altogether ten main factors were identified and grouped under Social, Mental and Physical Health. It is observed that all the health factors get worse when the frequency and quantum of drinking increases. The Social, Mental and Physical Health factors of heavy drinkers are in extreme trouble, but the sad part
is that these drinkers will be too late to identify these consequences and once it is identified, they will not be in a position to overcome.

Liquor is not an ordinary commodity that people buy from shops. It carries intensions of pleasure and sociability in the minds of people who consumes. The consequences of its use may be known to all who are using it, even though it is not in the desired extend. As documented in this study, liquor consumption exerts an enormous toll on the Physical, Mental and Social Health of human beings. This research has shown that worrying trends are there in Kerala which points to the increases in volume of drinking and the emerging trend of more harmful and risky patterns in drinking especially among young people predicted for almost all regions of Kerala. A holistic perspective on liquor policy needs to acknowledge and take into account the characteristics, effects and consequences of liquor use in different societies. The prime prerogative of the society should be to focus and act on the public health goal which is to minimize the harm on society caused by drinking.

10.7 Recommendations
10.7.1 To the Policy Makers

Scientific studies have not explained the efficacy of the physical controls in controlling consumption of alcoholic drinks, in spite of their known negative side effects. The government of Kerala is now focussing to make the supply of good quality liquor, in spite this being considered as not good for health, available for those who wish to consume. The government does so, by stating that if the government tries to restrict the availability, people will turn to spurious and illicit liquor which may lead to hooch and spirit tragedies.
Keeping in mind all the vital findings and if this study recommends for prohibition of alcoholic drinks in Kerala, it will be utopian. The argument for prohibition can be proclaimed by quoting Article 47 of the Directive Principle of State Policy of Indian Constitution, but the practicability of implementing the same will be remote and sometimes arguments against prohibition such as freedom of choice, revenue loss to exchequer, problems of re-employment etc will be so potent. The dependence of Kerala’s exchequer on revenue raised from liquor sales is pointed out by some studies. It is reported that, on an average liquor market in Kerala contributes around 20% of the tax revenue collected in Kerala and around 13% of the total revenue receipts.

From the detailed analysis in this study, it is obvious that, the extent of drinking is spoiling physical, mental and social health. From several instance quoted in this study, it is apparently stated that the consequences of liquor consumption will be felt by the drinker very late in his drinking cycle. It is clear from this study that if people are attributed to heavy drinking, the consequences will be heavy.

The ambiguity and confusion among the policy makers is created from the above mentioned facts related to state revenue and the solution for this should be directed in such a manner that it should not hamper much on the tax buoyancy of the state and must safeguard the health and welfare of people.

Kerala is a state with highest rate of literacy in India and that was made possible with a mass public campaign called “Sampoorna Saksharatha Programme” aiming at attaining full literacy in the state and it was a successful
endeavour. The mission created awareness among illiterates in Keralites to become literate.

One such mass campaign should be planned by the state government keeping in mind the measures to reduce the consumption of alcoholic drinks. The word reduction is mentioned purposefully here because, prohibition or stopping the consumption habit on a fine morning is not at all practical. It is to be noted that this campaign will be successful as there is evidence that people choose drinking for no reason. If this mindset is managed properly, with the high level of literacy among Keralites there will be considerable reduction in consumption of liquor.

The awareness program should start from the schools, since student drinking is an upcoming problem as mentioned in this study. The campaign should reach each and every corner of the state and thus create an awareness among Keralites of the money spend by them and the related consequences in this regard to their physical, mental social health. If the campaign could bring reduction in the consumption rate, the impact of drinking on social, mental and physical health will be reduced relatively. To find out the fund sources for this mass campaign is relatively easy because, it can be sourced from the income generated by KSBC. The programme will be a fruitful endeavour if it could change the hard core heavy drinkers in Kerala to conceptually low drinkers and thus we can call them as healthy drinkers. The government may think alternative ways to monitor the pricing and distribution policy of liquors to optimize the loss in revenue.

10.7.2 To the Drinking Population of Kerala

One of the unique character shown by drinkers in Kerala is the fact that majority of them don’t have a reason to drink. So finding the real cause of drinking is
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difficult and hence the solution too. If somebody asks about the reason for some of our habits, probably we don’t have a fixed answer for that. This is the same case with drinking too and heavy drinking can be considered as a unique habit of Keralites.

The pattern of drinking in Kerala, its economic, cultural and demographic characters are well explored in this study and all these points out that Kerala is moving towards much wretched condition whereby alcohol and related market is becoming the most productive sector in Kerala. The impact of liquor consumption is addressed by this study by considering around fifty situations related to drinking and with the help of statistical tools the study states that all these health factors may get worse when one starts drinking and become much worsen when the extend and quantum of drinking increases. The cultural fabric in Kerala will be affected as it is observed that ladies are also slowly growing in numbers as far as drinking is concerned.

This is the area where Keralites should go for a self necropsy in finding the cross relationship between societal life and drinking. If we try to spend time on that, all could feel the impact of our drunken behaviour on the self, family and the society. It is really dangerous that, the Keralites are moving towards heavy and unhealthy drinking. It is always advisable to stay away or at least reduce the consumption to such a level to make sure that, it is not creating much harm to self, family and the society as a whole. Above all, wise counsel must prevail among the powers to remember the Indian concept of welfare for everyone as the most important directive while formulating policies regarding issues that are to be detrimental to the welfare of the public.
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Reference
