



## EVALUATION OF WINE PURCHASING BEHAVIOUR OF DIFFERENT TYPES OF CONSUMERS

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**ABSTRACT:** A questionnaire survey of wine purchasing behavior was carried out among student of the College of Kecskemét in the spring of 2012. Out of the 1000 questionnaire 511 was valid for evaluation. I concluded that the expression of results in percentage is misleading. In most of the cases there are no significant differences among seemingly different outputs. To help solving this problem I applied confidence interval method. By calculating the relative frequency of a particular case the upper and lower limit of the probability can be determined by following the calculation of confidence interval method for standard normal population. By this method groups that have significant difference can be separated, even when the number of sample greatly differs. I found for example significant difference in the consumption of bulk white wine, spirits and beer favored by poor conservative type of wine, while picky consumers prefer bottled quality wine  
**KEYWORDS:** consumer behavior, relative frequency, consumption of different quality of wines

### INTRODUCTION

Over the last ten years, numerous studies Hungarian wine consumer buying behaviour. The market researchers, marketing scientists, academic institutions, faculty and students interviewed thousands of consumers. Advanced statistical methods analyzed the data about consumer target groups and segments were created (Sterk P., 1992). Multivariate models were applied to cross-tab classical socio-demographic segments with the answers to the questions.

Thus more accurate results were obtained. Factor and cluster analysis make it possible to distinguish more homogenous sub groups called segments. This may also indicate that consumer behaviour cannot be considered as homogenous. In many studies researchers ignore these subgroups and results are only means which are misleading (Nótári M - Ferencz Á., 2011). In surveys the number of socio-demographic members can be quite different. Calculating a mean does not show real statistic difference. Therefore confidential interval gives more reliable results. In this research this kind of calculation is used. A typical consumer shopping attitude is formed by the action of a wide variety of factors that are difficult to model.

Today the extraordinary abundance of products and their communication confuses consumers who are unable to do purchase decisions. Even today stereotypes are important because consumer "laziness" (Baglyas et al, 2001). In a market research is essential to insure the principle of representation. If the sample is not random elements included in the sample, mathematical and statistical methods cannot be applied (Bányainé-Perczelné, 1983).

Two typical sources of error can be calculated. At first, when the principle of representation is undermined, and the other when in the sampling subjective considerations prevail. In these cases, the pattern will be distorted and corrective solutions do not yield optimum results. If we do an extra questioning the budget will be exceeded. If a weighting is adjusted, a few percent can result a better solution, but this method raises ethical issues. It is also possible to test how representative the sample (Móricz É. 1992).

After the political transition in Hungary wine market became supply orientated. Consumer demands became bipolar as it is known in West-Europe. One group is the so-called "heavy drinkers who are not interested in quality. The most important factor for them is low price. They represent consumers with lower income, but they are frequent customers. Wine is a source of alcohol for them which eases social tensions (Ferencz Á. - Nótári M. 2011). They drink most of the wine that is produced in Hungary (Kopcsay L.-Totth G., 1997). table wines sold in plastic cans is just perfect for them. They are mostly middle-aged and older men with low educational attainment.

As for the future the other major category, the group of "quality customers" is more important. They are more demanding and expect a reliable and consistent quality. They are customers with higher levels of education, and are in the middle class.

## MATERIAL AND METHODS

In the spring of 2012 1000 consumers were researched to reveal the wine purchase behaviour of Hungarian wine drinkers.

Based on the answers of the respondents ratio estimation was calculated, and confidence intervals were counted at 95% probability level. This kind of estimation is more precise than point estimation. "P(A)" is the probability of an "A" occurrence, that is the value around which the relative frequency of the observed occurs. That is, if in "n" case "A" occurrence happens "k" times, then k/n relative frequency can be used for estimating "P(A)". Of course its value varies when we repeat the research [3]. An interval can be calculated where in (1-  $\alpha$  = 0,95) probability the estimated  $p = P(A)$  is included.

The interval is counted by the formula below, if  $n > 30$ .

$$\frac{k + \frac{1}{2}u_{1-\frac{\alpha}{2}}^2}{n + u_{1-\frac{\alpha}{2}}^2} < p < \frac{k + \frac{1}{2}u_{1-\frac{\alpha}{2}}^2 + u_{1-\frac{\alpha}{2}} \sqrt{\frac{k(n-k)}{n} + \frac{1}{4}u_{1-\frac{\alpha}{2}}^2}}{n + u_{1-\frac{\alpha}{2}}^2}$$

where  $u_{1-\frac{\alpha}{2}}$  is the quantile of standard-normal distribution. It can be found in a table and if it is fixed in  $\alpha$ -t 5% probability its value is 1,96 (Bányainé-Perczelné, 1983).

## RESULTS

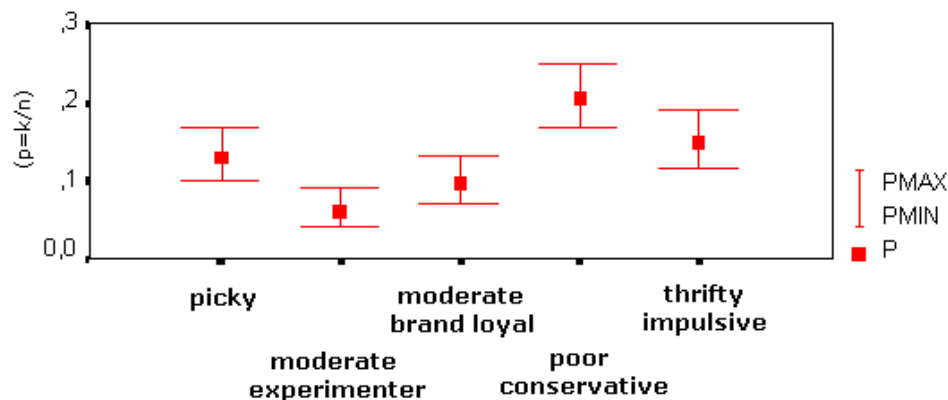
According to respondents' answers the consumption of table wines can be explained by low income. This segment is called as „poor-conservative”. The next segment can be called „thrifty-impulsive” (Figure 1.).

As for bottled quality white wines the order is the following:

1. „picky”,
2. „moderate brand loyal” and
- 3 „moderate experimenter”.

These are proved to be statistically different. However, it can be seen that „poor-conservative” and „thrift-impulsive” drink wine less frequently (Figure 2.).

### Who drinks cheap table wine in plastic bottles?



Types of wine drinkers

k=the number of respondents who drink this type of wine

n=total number of respondents

Figure 1.: The preference of white table wines among different consumer types

As for bottled quality red wines similar results were obtained (Figure 3).

A surprising result came out when frequency of spirit consumption was examined. Both „poor-conservative” and „picky” groups drink spirits more frequently. Perhaps the type of spirits differs in these groups (like whisky vs. pálinka).

Beer is a supplemental beverage to wine therefore it was worth examining beer consumption. Beer is the most popular among „poor-conservative” consumers just like table white wine in plastic cans. This explained by the well-known fact that wine is cheaper than beer. These consumers prefer beer to wine but can afford only table wine as „spritz”. Due to this fact per capita wine consumption grew.

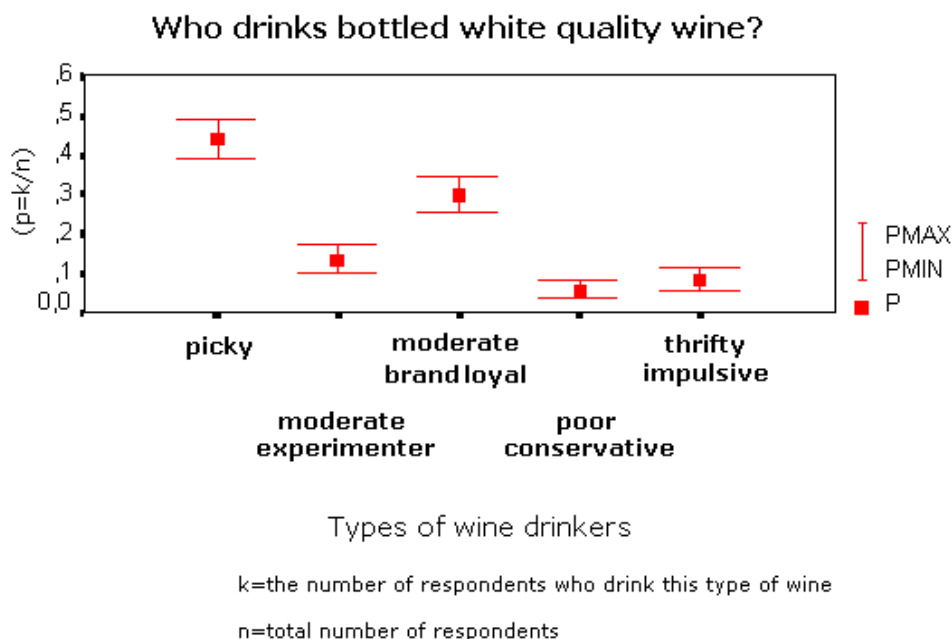


Figure 2.: The preference of quality bottled white wines in different consumer types

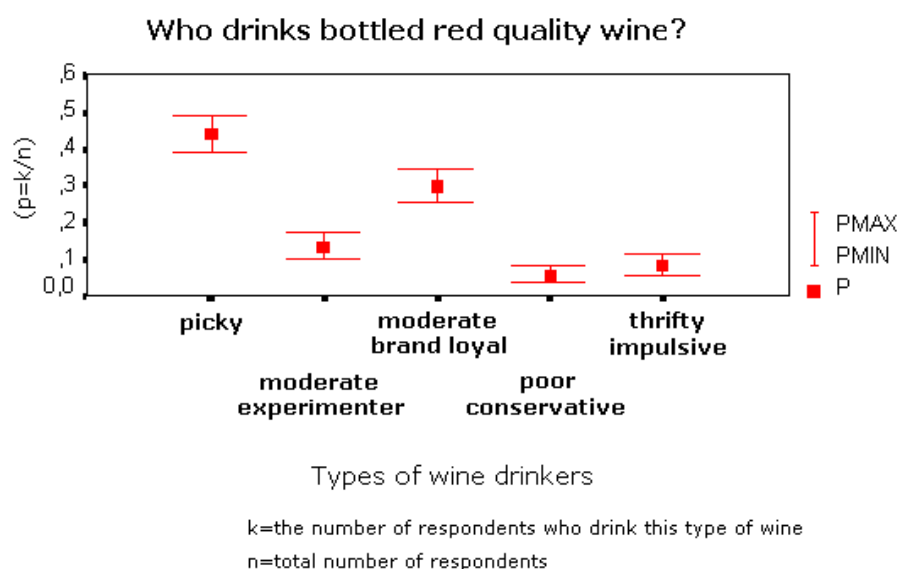


Figure 3.: The preference of quality bottled red wines in different consumer types

„Picky” consumers drink fruit juice and mineral water most frequently. The reason behind this finding is that fruit juices are expensive and consumers with lower income do not spend so much money for mineral water. It can be concluded that only people with more money can afford to be „picky”. They are also more health conscientious.

## CONCLUSIONS

When answers to questions are evaluated, the calculations of simple mean values are misleading as all the socio-demographic segments are averaged. Only statistical tests can reveal real differences.

In the paper real statistical differences were found by using the interval of relative frequencies.

Calculating confidence intervals is essential if sub groups are different in size and hypothesis should be justified.

Results show that „poor-conservative” consumers are very price sensitive. This can be seen in beer-wine consumption. „Poor-conservative” drink spritz which is much cheaper than wine and has the same alcohol content. However, they would like to drink beer if they could afford. Before political transition they were workers with better living standard. On May 1st they used to drink a lot of beer and ate sausage.

Fruit juice and mineral water consumption is money-dependent.

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