SZENT ISTVÁN UNIVERSITY
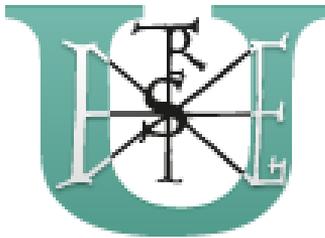**Gödöllő**
PhD SCHOOL OF MANAGEMENT AND
BUSINESS ADMINISTRATION

THE SITUATION OF THE GRAPE AD WINE INDUSTRY,
WINE CONSUMPTION, WINE TOURISM

THESIS OF THE DOCTORAL (PhD) DISSERTATION

Ilona Edit Pallás

Gödöllő
2016.

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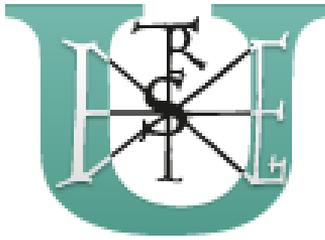**Gödöllő**
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Name of PhD School:	Szent István University Management and Business Administration PhD School
Branch of science of PhD School:	management and business administration
Head of PhD School:	Dr. József Lehota Professor, DSc Doctor of the Hungarian Academy of Sciences Szent István University, Gödöllő Faculty of Economics and Social Sciences Institute of Business Studies
Thesis advisor:	Dr. habil Róbert Magda Associate professor Szent István University, Gödöllő Faculty of Economics and Social Sciences Institute of Economics, Law and Methodology

………………………………..   …………………………………..
signature of the head of school   signature of the advisor

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1 BACKGROUND AND OBJECTIVES

The history of grape production and wine culture is in parallel with the history of mankind as they played and still have been playing a very important role in the culture of the wine consuming countries.

The wine and grape sector is not only essential due to its economic role but it is also significant in culture, gastronomy and society. The activities accompanying this industry (tourism, catering, and wine marketing wine tours) have been playing a decisive role in the life of the rural society. The sustainable and environmentally-friendly production methods have come to the foreground nowadays, which is in line with the general tendencies.

1.1. The timeliness and significance of the topic

At present Hungary does not belong to the leading wine producing countries regarding its area of grape production or the quality of its wines. The main reasons of this fallback can be the weak profitability of grape production, and, consequently, a constant decrease in the area and loss of markets. Wine and grape production was performing weakly in ten years' time only the profits made recently are promising. Due to significant cuttings, changes in technology and insufficient replacements the role of employment has also become less important.

Nowadays the role of wine has changed. Quality and environmental protection have come to the foreground while wine tourism and the role of wine culture have been more and more stressed as one of the possible instruments of rural development. Wine culture does not only deal with wine consumption in a refined manner but also comprises a wide range of knowledge, namely, production history, arts, gastronomy and other important basics that have been accumulated during the long time of grape production and wine making. Grape and wine conveys the cultures of people, regions and nations all over the world and also secures a form of living.

Nowadays our country is not competitive in the market of mass-produced wines, which appreciates the role of quality. The assessment of the Hungarian wines in the EU and also in the world market is not so favourable and it lacks image. It has to be created by marketing activities, which calls for significant sources. The quality-centred approach must prevail throughout the entire product path.

Wine tourism and wine tours have been playing an increasingly dominant role. Wine tours are connected to wine culture which can be regarded as

thematic journeys based on the local produce that connects settlements and regions. It is one of the most efficient ways of advertising wine.

We cannot give up cooperation and integrating the producers who have weak bargaining power. Integrators play a role in production, purchasing and selling but ensuring support and conveying information are also part of their tasks. Forming clusters should be a must in the industry as there are good examples already existing (e.g. the wine cluster in California).

In my mind the development of the wine and grape industry is a strategic objective. The ways to this end must be explored so that the Hungarian viticulturists could be successful. This area has been analysed and the problems arisen have been tackled on the basis of scientific examinations and also a strategy tailored to the changes is also presented.

1.2. Objectives of the research

The objective of my PhD dissertation is to support and prove that the situation of the Hungarian wine and grape production can significantly be improved. I have outlined the opportunities that can support this change.

My examinations are directed to two areas, namely
- a.) the objectives on the basis of the literature review;
- b.) the objectives on the basis of the primary research.

At the beginning of the research I have formulated the following objectives.

a.) Objectives on the basis of the literature review

Objective 1: Giving a short summary of the international situation of wine and grape production.

Objective 2: Surveying the situation of grape production in Hungary, analysing the reasons for the changes in ten years' time.

Objective 3: Presenting the situation of the current wine production in Hungary, exploring the reasons for the decline.

Objective 4: Presenting the situation of wine marketing in Hungary, surveying our national wine tours.

Objective 5: Presenting the changes in the economic indicators, drawing conclusions on the basis of the analysis.

b.) Objectives on the basis of the primary research

Objective 6: Assessing the Hungarian wine consuming habits and evaluating the tendencies of changes based on the questionnaire.

Objective 7: Presenting the ideas of the population in connection with wine marketing by using questionnaires.

Objective 8: Analysing wine tours by the general public while using statistical methods.

Objective 9: In-depth analysis of the examined areas (wine consumption, wine marketing, wine tours) on the basis of interviews in order to draw well-grounded conclusions.

Incorporating the experience of literature review I have made and examined the following research hypotheses in my dissertation.

1.3. Hypotheses of the research

Hypotheses:

H.1. Wine used to be part of tradition, culture and everyday meals in wine producing and wine consuming countries. It has been changed by now, which poses a challenge to marketing and sales.

H.2. We do not make full use of our country's potential and the annual grape production is not sufficient to meet the minimum needs of the wine sector. It is our strategical interest to improve viniculture and viticulture.

H.3. Purchasing and consuming wine do not only affect homogeneous population as it changes dramatically on the basis of the single characteristics (gender, age income, qualification, domicile etc.).

H.4. Lack of cooperation weakens competitiveness. Forming an operating wine cluster could be justified in some wine regions.

H.5. The more and more intense competition underpins the role of wine marketing. Quality is becoming more and more important and wine tourism may play a significant role in sales based on trust.

H.6. Project applications favour strong capital so the competitiveness of family and small-scale farms is getting weaker and weaker. Trade is controlled by multinational food chains.

H.7. Producers from the New World are competitive and we cannot compete with them but new marketing and sales can improve the situation.

2. MATERIAL AND METHOD

Research can be regarded as a process of consecutive steps illustrated by a flow chart.

2.1. Process of the research
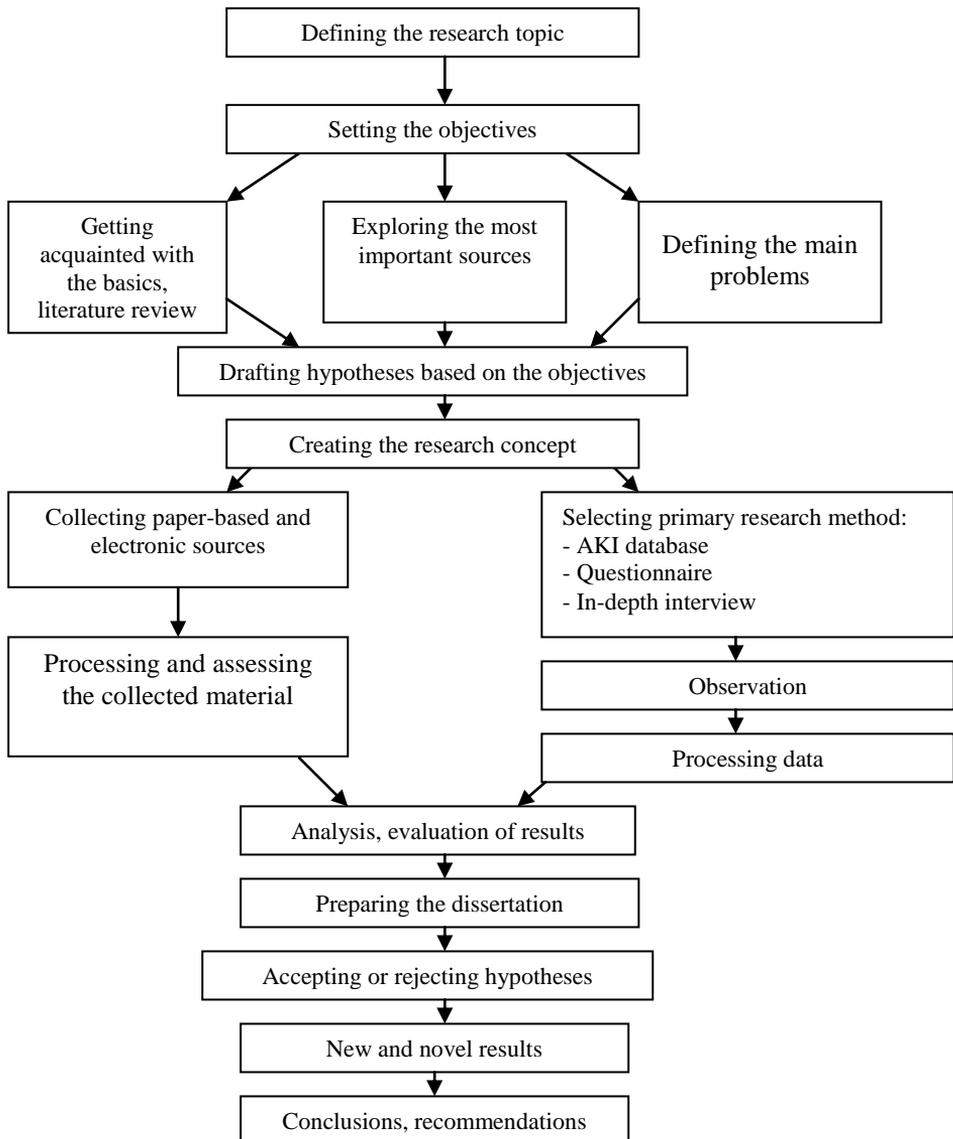
Figure 1 presents the steps of the research.

```
                    ┌──────────────────────────────┐
                    │  Defining the research topic  │
                    └──────────────────────────────┘
                                   │
                    ┌──────────────────────────────┐
                    │     Setting the objectives    │
                    └──────────────────────────────┘
```

| Getting acquainted with the basics, literature review | Exploring the most important sources | Defining the main problems |

```
        ┌──────────────────────────────────────────┐
        │ Drafting hypotheses based on the objectives │
        └──────────────────────────────────────────┘
        ┌──────────────────────────────────────────┐
        │       Creating the research concept        │
        └──────────────────────────────────────────┘
```

Collecting paper-based and electronic sources	Selecting primary research method: - AKI database - Questionnaire - In-depth interview
Processing and assessing the collected material	Observation
	Processing data

```
        ┌──────────────────────────────────────────┐
        │      Analysis, evaluation of results       │
        └──────────────────────────────────────────┘
        ┌──────────────────────────────────────────┐
        │        Preparing the dissertation          │
        └──────────────────────────────────────────┘
        ┌──────────────────────────────────────────┐
        │      Accepting or rejecting hypotheses     │
        └──────────────────────────────────────────┘
        ┌──────────────────────────────────────────┐
        │          New and novel results             │
        └──────────────────────────────────────────┘
        ┌──────────────────────────────────────────┐
        │        Conclusions, recommendations        │
        └──────────────────────────────────────────┘
```

Figure 1. **The research process**
Source: author's own compilation

2.2. The database and methodology of secondary and primary research

2.2.1. Secondary research

Secondary research is an important part of data collection, i.e. part of the work when somebody else's data and published results are taken over and not new ideas are introduced. The so-far known results serve as the basis.

By reviewing the national and international literature the most important Hungarian and international publications relevant for the dissertation are considered to base the economic and social attachments of my research area professionally on the one hand, and introduce the emerging different opinions, on the other hand.

Marketing is an important task of the winemakers. I will present the situation of marketing considering wines. An essential task is the evaluation of the international situation of wine trade and the survey of the trends of changes. A short summary of the literature on wine culture, wine tourism and gastronomy makes my literature review more complex. While assessing wine and grape production from an economic point of view based on AKI data (Agricultural Research Institute), the income situation of wineries is also presented.

My objective is to publish secondary research results and draw conclusions, which can help accept or reject my hypotheses.

In the literature review the wine and grape production of the world, the EU and Hungary are analysed and the changes are assessed. Breaking down wine consumption per country helps explore wine market trends. The concentration of wineries seems to be unavoidable due to the fiercer competition, which is only in the initial phase now.

These days the role of marketing is getting more and more important. In the case of wines it must be stressed as our fallback in this field is significant. The efficient use of the paraphernalia of marketing can assist in selling Hungarian wines in the countries of the world, creating jobs and improving our country's reputation. The database of KSH, EUROSTAT, OECD, STADAT were used in the research and in most of them 2013 was set as the latest year.

By making use of AKI data I have analysed the situation of grape production in ten years' time, and I also present the economic indicators and draw conclusions based on the results. In order to assess them properly, we have to know the cost-income situation of the well-discernible verticum parts. The Agricultural Research Institute runs a farm accountancy data network in order to get to know the annual basic data of the economic assessment. The data of the farm accountancy data network represent approximately 110

thousand agricultural enterprises, so the AKI database is suitable to draw conclusions.

When presenting cost and profit situation the data of the domineering goods producing farms are decisive. The owners of these farms produce for making a living (the lower limit is the annual minimum wage) and their production in total is decisive as they account for minimum two-thirds of the national production.

2.2.2. Primary research

An important part of the research is gathering statistical data. It is necessary to accept or reject my hypotheses by my own data which are typical of the examined area. Primary data is what the researcher collects and they originate from an unpublished source. The result of the primary research is data of primary source that can be analysed.

In my primary research I analysed the wine and grape industry on the one hand, and carried out a survey, i.e. a questionnaire on wine consuming and purchasing habits, assessed the opportunities of wine tours and direct sales, on the other hand.

In my opinion the responses to my questionnaire –that accept or reject my hypotheses- can lead to new and novel results. Pre-tested questionnaires were used in the survey. Of the 800 questionnaires sent out 518 could be assessed and were processed.

Most of my questions are **mainly close questions**. The use of close questions is justified by the fact that I needed information that can be assessed easily and generalised properly.

The questions in the questionnaire comprised the following areas.
  - general questions on wine consumption;
  - questions necessary for analysing wine purchasing habits;
  - questions suitable for surveying wine purchasing and consuming habits;
  - questions on wine marketing;
  - questions to explore the hidden potentials of wine tours and wine tourism;
  - personal questions of the respondents.

I mostly applied the scale method for responses.

The composition of the respondents can be a possible source of different opinions, which is presented while evaluating. The questionnaire contains close, open and scaled options. I rarely used open questions only where

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several alternatives occurred. Scaled options (from 1 to 5 or 1 to 10) are used in the following case (just to mention a few).

- What do you think of wine?
- What do you think the chances are like in Hungarian wine making and wine consumption?
- On what grounds do you choose wine?
- Where do you usually buy wine?
- What kind of wine do you consume?
- What kind of marketing tools did you meet when buying and consuming wine?
- What services and programmes do you think should be incorporated in wine tourism?
- What social and economic objectives do you think wine tours can have?

On the basis of the scaled responses I analysed the breakdown of the respondents. Based on the structure of my questionnaire built on my research plan there is an opportunity to examine and classify the respondents' clusters, state and analyse the differences in opinions as well as connections and correlations.

2.3. Statistical methods used in the research

Data recorded in the questionnaire were evaluated by statistical analysis based on scientific methods to support the conclusions and the hypotheses. After entering data, processing took place by means of SPSS 20.0 programme. The figures and diagrams were made in Microsoft Excel.

2.3.1. Uni-and multivariate analyses

The following calculations were made in the univariate analysis.
- breakdown;
- mean;
- deviation.

Multivariate analyses are essential as they make the exploration and explanation of the correlations between the subgroups of the variables. Of the multivariate methods used in quantitative research **non- parametric trials** were applied. Such analyses can be carried out when the breakdown of the sample differs from the normal and the data are not suitable for parametric examinations.

A special part of non-parametric trials is the **rank-based methods.** These methods proved to be the most effective to test my hypotheses. In my examination the correlation between variables was measured on the ordinal scale. It can be used if the exact values of the given variables are not known only their order based on a kind of aspect.

- Kruskal - Wallis test

The trial developed by W. H. Kruskal and W. A. Wallis in 1952 also examined rank data. The Kruskal - Wallis test belongs to the non-parametric statistical procedures. The trial serves to compare the mean of more than two independent samples, i.e. practically it is the variance analysis of the data of the ordinal scale. In this case in contrast with the Mann-Whitney test at least three or more samples are necessary to compare. The following formula is used to calculate the rank sums.

$$T = \Sigma T_1 = N\,(N + 1)/2$$

(where N = number of all the data per entire sample, T = sum of the rank data).
By using the formula above the properness of assigning rank values can be examined.
If the sample is big enough, i.e. the number of the elements of all samples is minimum five, the so-called H value can be calculated by using the formula.

$$H = \frac{12}{N(N+1)} \bullet \Sigma(Tx^2 / n_x) - 3(N+1)$$

where n_x = size of the sample x, N = n1 and n2 + …n_x, i.e. total number of examined groups, T = sum of the rank values.

$$H = \frac{12}{N(N+1)}\left(\frac{R_1^2}{n_1} + \frac{R_2^2}{n_2} + _{...} + \frac{R_k^2}{n_k}\right) - 3(N+1),$$

where n_x= number of the elements of sample x, R_x rank sum of the sample x, N = total of the elements of the samples, i.e. $N = \Sigma n_x$

- Mann – Whitney test
(Wilcoxon's rank sum test)

This examination method was first worked out by Wilcoxon that is why a lot of sources term it as Wilcoxon's rank sum test. However, we have to note

that a bit later it was Mann and Whitney who published its interpretation. Yet, in order to differentiate it from Wilcoxon's rank sum test that is to evaluate the correlating data, the method used to compare independent samples is named as *Mann-Whitney test*.

This non-parametric examination is based on rank correlation and can be carried out by means of the following formula.

$$z = \frac{R - n_1(n_1 + n_2 + 1)/2}{2}$$

where R = the smaller of the mean ranks of the two groups, n_1 = number of the elements in the smaller group, n_2 = number of the elements in the larger group.

The main point of rank transformation is that the two samples to be compared-in this case the opinion of men and women- are ranked jointly and not separately. In this way the rank numbers are not rank numbers within the group, rather, they are independent of the groups. If we receive identical rank data while calculating, then we have to make adjustments with the mean ranks. Afterwards, these adjusted mean ranks are broken down based on the original groups. If the median of the rank data calculated in the two groups are the same, then H0 that is the nil hypothesis is justified. If the median of the rank data differs, then the data measured in the two samples show a significant difference.

- Principle component analysis

Principle component analysis is a frequently used mathematical procedure of multivariate data analysis. The method serves to analyse the system of correlations between the variables and it starts from here. The process makes it possible to summarise the responses in a way that reduces the inevitable loss of information during processing to the smallest extent possible.

The main point of the method is to define hypothetical, independent background variables instead of the original, mutually correlated variables and by using them the original characteristics of the units of observation are substituted with fewer artificial coordinates. By omitting the less relevant information the number of variables decreases so the cause and effect correlations can be stressed.

Actually, the summary mentioned before is directed at creating new and fewer non-correlating variables (principle components) of the great number of correlating items. In this way we make the operations with them easier to carry out (as we work with non-correlating and presumably but not absolutely independent variables) and we also reduce the likelihood of

errors. A further advantage is that our data are made more transparent and their interpretation becomes easier. In addition, the procedure allows us to ascertain whether the variables that are to measure a 'common' dimension really measure one single dimension.

The procedure also allows us to find fewer variables that are originally presumed to be non-correlating in the mass of data. To illustrate, the **principle component analysis** is similar to such a rotation of the frame of reference that results in the axes' turning to the direction of the greatest spread of the database.

The main points of the mathematical method can be summarised as follows. Let us suppose that the following vector variable is given.

(A.1.) $\qquad x = (\chi_1, \chi_2 \ldots, \chi_n)$

where $\qquad \underline{n}$ the number of the observed variables. Let μ_x stand for the mean:

(A.2.) $\qquad \mu_x = E\,(x)$

The variance-covariance matrix of the database is

(A.3.) $\qquad C_x = E\,[(x - \mu_z)\,[(x - \mu_z)^T]$

The c_{ij} elements of the C_x matrix mark the covariance between the χ_i, χ_j variables. If χ_i and χ_j do not correlate, then $c_{ij} = 0$, The C_x matrix is still symmetrical. As the next step let us solve the eigenvalue equation of the C_x matrix.

(A.4.) $\qquad C_x e_i = \lambda_i e_i$

where $i = 1, 2, \ldots n$. Let us suppose that eigenvalues differ.

(A.5.) $\qquad /C_x - \lambda I/ = 0$

Let us arrange the eigenvectors in a descending order of their eigenvalues. In this way an octogonal base derives whose first eigenvector shows in the direction of the greatest deviation in $\underline{n}$-dimension. This is the transformation in question.

After the varimax rotation of the principle component analysis the correlating coefficients that express the correlation between the original variables, variables and hypothetical background variables are presented in a table.

2.4. Qualitative method

In-depth interview is a qualitative technique similar to the interview with the respondent. Thirty-seven interviews were carried out in 2015. In-depth interviews contribute to the justification of the research results. The interviewees were predominantly managers or other employees in the wine and grape industry who are not indifferent to the situation of this sector.

During the interviews first the questions of my questionnaire were studied with the interviewees on the one hand, and also the cause and effect relations were explored during the talks on the other hand. The interviews lasted for approximately one hour in a relaxed way. This method is more informal than the questionnaire so motivations and reasons can better be explored.

MAJOROS (2003) makes a list of the characteristics of the qualitative interview which
- 'serves to identify problems and draft hypotheses;
- as well as to evaluate concepts and possible solutions;
- it can serve as a preliminary survey when drafting the questions of the qualitative examination;
- it is usually of informal nature like a chat, interactive, flexible and adaptable (but planned before);
- usually not suitable for collecting objective, numerical data;
- content analysis and expressing the information received by numbers is problematic; and
- it is suitable for handling complex issues'.

Usually it is not possible to carry out statistical analysis based on these responses; it is not representative but can answer a lot of important questions. A great number of correlations are pointed out in the in-depth interview which cannot be explored so properly by questionnaires, which can or cannot justify my hypotheses.

The interview can be used in the initial phase of the research when making the questions of the research more exact. It can also be used at the final phase of the research when the real results can be asked by the respondents. The 'art' of the interview is creating a friendly atmosphere.

3. RESULTS

This chapter includes the most important points made by the economic analysis, the questionnaire, the SWOT analysis and the in-depth interviews.

In the first part of my research the economic analysis is presented based on literature review and also conclusions are drawn.

3.1. The economic analysis of winegrape production

Before analysing the economic situation of winegrape production it is practical to mention some issues concerning the industry. Grape production suffered a severe crisis in the 1990's regarding both production and sales. Its consequence is the decreasing area of grape production and the reducing number of grape producers. Lately after our EU accession the grape and wine verticum has significantly improved. The situation is still grave today as the producers have to face the more and more intense competition in the market and cheap import products both on the national and international markets. Grape production is in a more disadvantaged situation than wine making and the risks are higher. We have to know the cost-profit situation of the well-discernible verticum parts to make recommendations.

Despite the changes the great fluctuation in income is typical of the industry. Grape is one of the plants where price often did not cover costs in the consecutive years. Costs of production cannot be assessed on their own. They can be judged in relation with the yield changes in real.

The examination is based on the farm accountancy data network of AKI embracing ten years of data.

Based on the farm accountancy data network there were significant differences between the single years in winegrape production. The annual differences of average yield (4 t/ha-11 t/ha) mainly depend on the weather.

Due to the low average yields Hungary is not competitive on the market of mass wines (Figure 2).
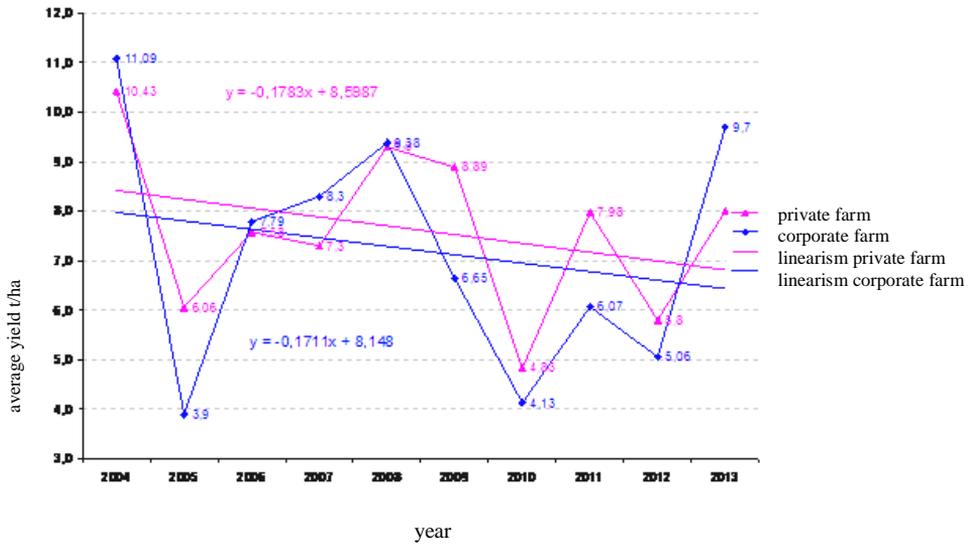
Figure 2. **Changes in average yield in private and corporate farms
between 2004 and 2013**
Source: author's own compilation based on AKI data

The income of the industry in both the private and corporate farms has been
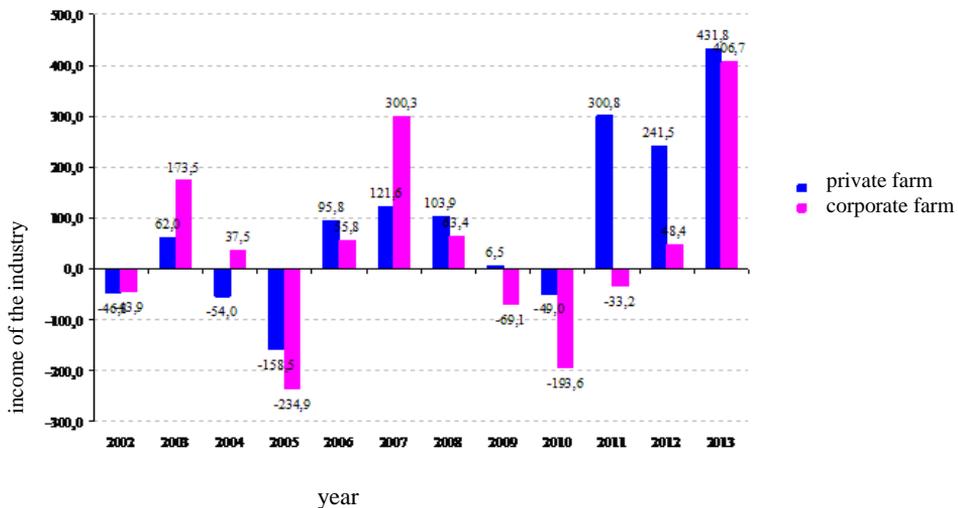in the red several times despite the subsidies (Figure 3).

Figure 3. **The industrial income of grape production in private and
corporate farms**
Source: author's own compilation based on AKI data

Before the EU accession private farms performed weaker despite the slightly
greater state subsidies. The income of the industry can be regarded modest

with the relatively high average yields. The weak results are due to the relatively high costs and low grape prices. The main data of 2011-2013 are presented by Table 1 and Table 2.

Table 1: **The cost and profit situation of winegrape (private farms 2011-2013)**

Name	Unit of measure	Average of private farms		
		2011	2012	2013
production cost	Ft/ha	511 338	492 894	541 822
average yield	t/ha	7,98	5,80	8,01
overhead	Ft/t	64 164	85 642	67 641
selling price	Ft/t	85 784	105 059	104 212
industrial income[a]	Ft/ha	300 829	241 527	431 761
industrial income per 100 Ft production cost		58,83	49,00	79,69
industrial income without subsidy	Ft/ha	173 324	111 748	300 810

Note: [a] including subsidies.

Source: author's own compilation based on the farm accountancy data network of AKI and calculations made by the Industrial Economic Department of AKI

Table 2: **The cost and profit situation of winegrape (corporate farms 2011-2013)**

Name	Unit of measure	Average of corporate farms		
		2011	2012	2013
production cost	Ft/ha	834 942	758 725	950 277
average yield	t/ha	6,07	5,06	9,70
overhead	Ft/t	137 454	150 045	97 976
selling price	Ft/t	102 852	121 087	121 955
industrial income[a]	Ft/ha	-33 222	48 384	406 683
industrial income per 100 Ft production cost		-3,97	6,37	42,80
industrial income without subsidy	Ft/ha	-192 590	-138 275	247 240

Note: [a] including subsidies.

Source: author's own compilation based on the farm accountancy data network of AKI and calculations made by the Industrial Economic Department of AKI

Private farms performed well in all the three years and the industrial income per 100 Ft production cost was more favourable. The results of the last years are promising.

The second part of my research is directed at presenting the results of the primary research.

3.2. Evaluating the questionnaires

To this end, I compiled a questionnaire to present the situation of wine consumption and wine tourism by involving people living in different parts of the world. Eight hundred questionnaires were sent of which 518 could be assessed. The methodology of processing the questionnaire is detailed in the Material and method part. Evaluation by SPSS 20.0 programme makes a detailed analysis possible but due to the constraint of the content and volume only the most important figures and tables are presented here.

3.2.1. Presenting the respondents of the questionnaire

A simple statistical sample taking took place when selecting the respondents of the questionnaire.

Both men and women filled it in. The proportion of men is almost 57% while that of women is 43%. It is not possible to define this proportion accurately as not everyone answered each question and there were small differences in evaluation. The marital status of the respondents is presented by Table 3.

Table 3: **Marital status of the respondents**

Name	Number of respondents
Single	186
Married (or with companions)	274
Divorced	50
Widow/widower	8
Total	**518**

Source: author's own compilation

The age of the respondents is a decisive factor as motivations also differ depending on it. It is illustrated by Table 4.

Table 4: **Age of the respondents**

Name	Number of respondents
18 – 25	164
26 – 40	172
41 – 60	154
above 60	28
Total	**518**

Source: author's own compilation

Regarding qualification the respondents were well-qualified. Eleven percent graduated from vocational schools, 36% from secondary schools and 53% college or university. The two people who only had elementary school qualification could not be included due to underrepresentation.

Breakdown by income is in line with the national average as most of them earn 100-150 thousand Ft per month (Table 5).

Table 5: **Monthly per capita net income of the respondents**

Name	Number of respondents
0 – 50 000 Ft	20
50 001 – 100 000 Ft	72
100 001 – 150 000 Ft	268
150 001 – 200 000 Ft	62
200 001 – 300 000 Ft	54
Total	**516***

*2 persons did not respond
Source: author's own compilation

3.2.2. Evaluation of wine consumption

Wine consumption is analysed by age group, income, gender and age. I have also analysed it in relation with the regions of the country and qualification.

Figure 4 presents the breakdown of the sample by objective of consumption. The percentages show that consumption for private use is not too significant compared with the other categories (for the family, to welcome guests, for present, to collection). In my opinion it proves that wine consumption tends to be linked to occasions and everyday consumption is pushed in the background. It can also be explained by frequent driving and who drives must not drink.

for private use
for the family
to welcome guests
for present
to collection

Mean

,323
2,61%

,26
2,10%

,563
4,55%

,781
6,31%

,031
0,25%

,594
4,80%

,328
2,65%

,563
4,55%

,719
5,81%

,031
0,25%

,765
6,18%

,235
1,90%

,569
4,59%

,745
6,02%

,059
0,48%

,889
7,18%

,5
4,04%

,694
5,61%

,75
6,06%

,25
2,02%

,818
6,61%

,455
3,67%

,545
4,41%

,636
5,14%

,273
2,20%

1-5 dl   6-10 dl   11-20 dl   20-50 dl   50 dl-nél többet
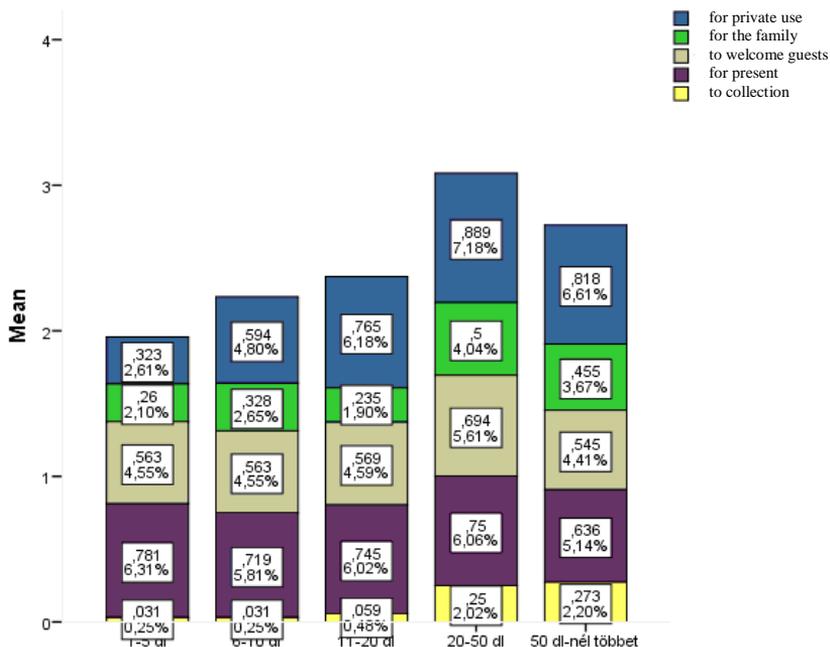
How many decilitre of wine do you consume

Figure 4. **Breakdown of the sample by objective of consumption**
Source: author's own compilation

Of the examined variables significant changes have been made in the
quantity of wine per gender, age, region and qualification in the last 5 years
according to the respondents' opinion. Income and domicile did not
influence the quantity changes of wine although with a 10% error the
difference is significant.

Data prove that the quantity of wine consumed has risen according to the
men's opinion as opposed to that of women. It has not changed according to
the young while the elderly say the quantity of consumed wine has
increased. By using the Kruskal–Wallis method I examined the differences
between the mean ranks of more than two groups in wine consumption
(Table 6). Results are significantly different in five cases.

Table 6: **NPar Test: How has the amount of wine consumed by you changed in the last 5 years?**

Test Statistics[a,b,1]

	monthly per capita net income of the respondent	gender	age	domicile	region	qualificatio n
Chi-Square	4,917	25,052	12,854	6,959	17,854	10,107
df	3	3	3	3	3	3
Asymp. Sig.	,178	,000	,005	,073	,000	,018

a. Kruskal Wallis Test

b. Grouping Variable: How has the amount of wine consumed by you changed in the last 5
      years?

Source: author's own compilation

The questions directed at the changes in the quantity of wine show an increase with age. Men usually prefer increase except the age group above 60. Women between 18 and 25 would rather vote for no change. Figure 5 presents the results.

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[1]Kruskal-Wallis test serves to compare the mean ranks of more than two independent samples

df: degree of freedom
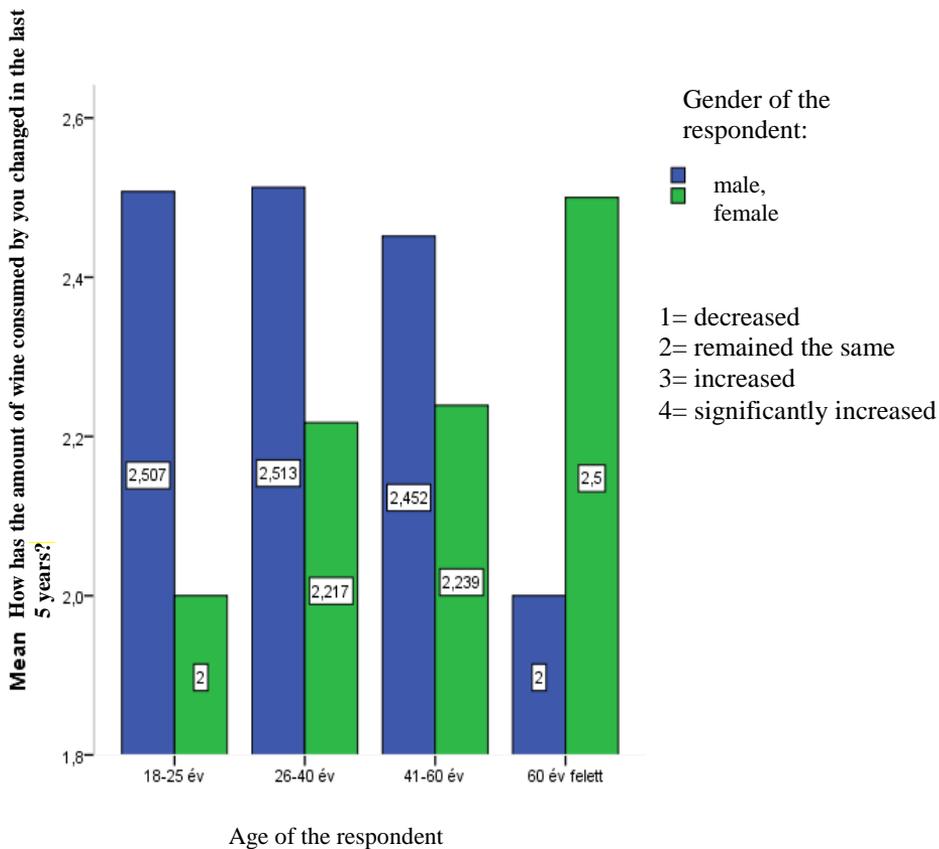
Asymp. Sig: significance level

Figure 5. **The average of point values expressing change**
Source: author's own compilation

3.2.3. Factor analysis

I have analysed the responses (variables) of question group 1, 4, 6, 13 and 36 by using a method to decrease variables. These are the important points in wine consumption –how often you consume wine –what you think of wine– how you see the chances of national wine consumption–how the quantity of wine consumed by you has changed–net per capita income per month. It is practical to examine the points above together as it turns out to what extent the opinions coincide and what system of correlations they make up.

The examined area can correlate with Objective 7 of the primary research. The total variance of the 17 examined variables is 17 of which 56,171% is deducted in 5 principle component variables. The common factor or principle component variable is explanatory.

I took into consideration only the principle factor weights above 0.6 as there is no significance test or rule about it. It is justified by the fact that the

correlation coefficients between the principle factor weights and the original variables define the correlation at least to 0.6^r $0.6 = 0.36$ x $100 = 36\%$ (^{r} square is the determining coefficient). The analysis is illustrated by Table 7 that also contains the rotated principle factor weights.

Table 7: **Factor Analysis**

<div align="center">Rotated Component Matrix^a</div>

	Component				
	1	**2**	**3**	**4**	**5**
How often do you consume wine per month?	**-,700**	-,174	-,015	-,168	-,192
Total per month (Ft)	**,637**	,183	-,089	-,099	,395
Wine is healthy if consumed in small portions	,027	**,786**	,102	,044	,140
Consuming red wine improves the vascular system	,100	**,799**	-,003	-,021	,150
Tokaji aszú has a curative power	-,049	,219	,070	-,298	,436
Wine has a community forming power	,099	,666	,445	,011	-,257
Wine is the drink of the occasions	-,156	,160	**,742**	-,034	,100
Consuming wine improves the mood of the company	,092	,483	,586	-,071	-,128
Wine is the best present	,297	-,043	**,715**	,057	,112
Drinking wine is more elaborate than drinking beer	-,069	,077	,494	-,070	,599
Wine is only consumed on occasions	-,032	-,262	-,079	,478	,523
We cannot compete with cheap, foreign wines	,146	,053	-,075	**,789**	,058
More and more people consume cheaper foreign wines instead of the Hungarian ones	-,101	,045	,079	**,804**	-,153
How has the amount of wine consumed by you changed in the last 5 years?	**,624**	,140	,047	-,052	-,118
price	-,420	,105	,033	,120	,323
Approximately how many dl of wine do you drink per month?	**,791**	,021	,139	-,076	-,106
Monthly per capita net income of the respondent	,413	-,073	,009	,145	-,073

a. Rotation converged in 11 iterations.
Source: author's own compilation

During the process the above mentioned principle factor weights show the correlation between the principle component variables and the original variables.

Principle component 1 illustrates the correlation between the wine consuming frequency that influences the quantity of consumption and the original variables. The areas that can be correlated are the frequency of wine consumption, the monthly per capita net income, the changes in wine consumption and the changes in the quantity of wine.

Effects on health are cumulated in Principle Component 2 (wine is healthy if consumed in small portions; consuming red wine improves the vascular system).

The community role of wine is reflected in Principle Component 3 (Wine is the drink of the occasions, wine is the best present).

Principle Component 4 reflects the current situation of wine consumption competition (we cannot compete with cheap, foreign wines, more and more people consume cheaper foreign wines instead of the Hungarian ones). Several variables not mentioned are explained by the principle components together.

3.2.4. Ideas of the respondents on wine marketing

The opinion of men and women is generally the same. In a strict sense, the genders only differed in wine tastings and wine presentations in the Mann-Whitney test. However, women had more favourable responses overall (Table 8).

Table 8: **Opinion of men and women on using marketing aids**

Test Statistics[a]

	wine presentation/ wine tasting	website	matching wines with dishes	posters, leaflets, hoardings	TV-, /radio programmes
Mann-Whitney U	28854,000	29840,000	31364,000	29238,000	30630,000
Wilcoxon W	71049,000	72618,000	74142,000	72016,000	73408,000
Z	-2,050	-1,553	-,673	-1,915	-1,078
Asymp. Sig. (2-tailed)	**,040**	,120	,501	,055	,281

a. Grouping Variable: gender of the respondent

Source: author's own compilation

A decisive and important question is where the respondents gain information on wines from.

There were six options on a scale from 1 to 5. The highest values were recorded on the response From friends and acquaintances (24.41%) and the role of wine festivals and events is also significant (19.44%). The responses are illustrated by Figure 6.
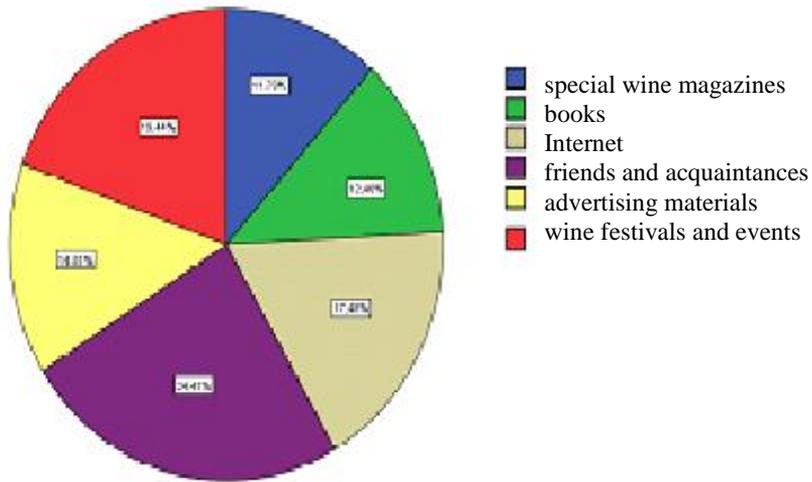
Fgure 6. **Where go you gain information on wines from?**
percentage of the total points
Source: author's own compilation

For the merchants it is essential to know the basis of selecting wines and their ranking order. The seven points of question group 21 are presented by Figure 7. Responses were measured by a scale from 1 to 5. Based on the responses value for money, brand awareness and excellent quality are important.
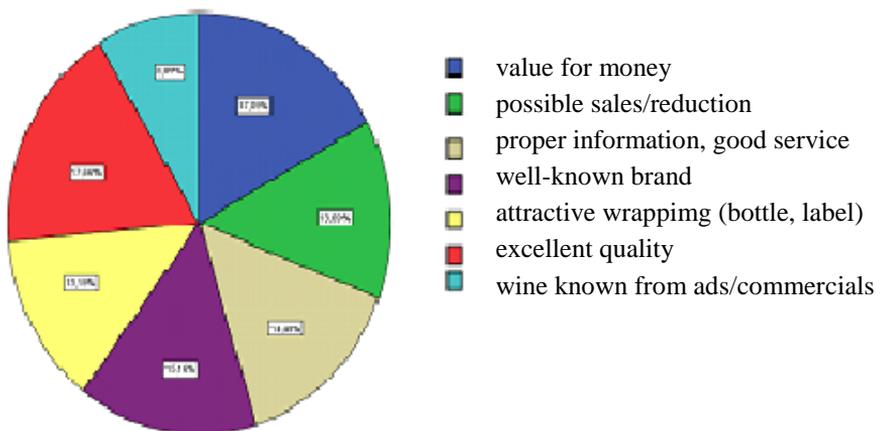

Figure 7. **What do you consider important when selecting wine?**
percentage of the total points
Source: author's own compilation

The respondents assigned greater values to marketing criteria as they grew older. It is presented by Figure 8.
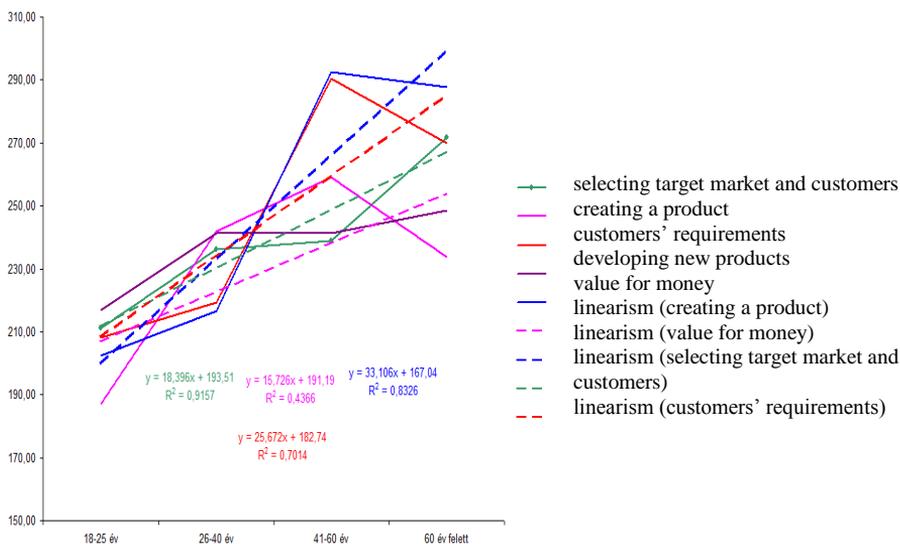
Figure 8. **Selecting target market and customers, customers' requirements, developing new products and value for money in marketing criteria, the regression of age and mean rank values**
Source: author's own compilation

3.2.6. Assessing the social and economic purposes of wine tours

I applied the Kruskal-Wallis test and the main group forming criterion was the position of the respondent.

The mean ranks of superiors are usually higher than those of the unemployed, students and pensioners. There is a significant difference between direct wine sales and halting migration/safeguarding jobs. The detailed evaluation is shown by Table 9.

Table 9: **Assessment of the social and economic purposes of wine tours by the Kruskal-Wallis test (by the position of the respondent)**

Test Statistics[a,b]

	direct wine sales	creating jobs, improving enterprises	halting migration/ safeguard-ing jobs	coopera-tion between local economic and civil players	devel-oping rural tour-ism	preserv-ing traditi-ons and cultural	popular-ising wine culture
Chi-Square	51,602	16,848	21,605	10,879	16,951	17,815	11,492
df	11	11	11	11	11	11	11
Asymp. Sig.	,000	,112	,028	,453	,109	,086	,403

a. Kruskal Wallis Test

b. Grouping Variable: position of the respondent

Source: author's own compilation

Due to the constraints of the volume, only a few examples are presented while assessing the questionnaire. A more detailed analysis is carried out in the dissertation.

3.3. Presenting in-depth interviews, evaluation

The target audience of the examination were the managers and owners of wine making and wine tourism. The examination was carried out in the wine regions of North Hungary in small-and medium-sized enterprises. The breakdown of the 37 assessable interviews is as follows.

- Bükk wine region: 2,
- Eger wine region: 12,
- Mátra wine region: 11,
- Tokaj wine region: 12.

The market was approached from the supply side. Contact was made by phone and email with the potential interviewees and finally 37 in-depth interviews were recorded successfully. Interviews were carried out in person in the wineries. The request of the respondent is respected according to which neither their names nor their personal particulars can be disclosed so information on this is not published during the examination.

The in-depth interviews were made between December 2014 and June 2015 in the wineries concerned.

One and a half hours were spent on recording the interviews where at first a proper atmosphere was created and informal but also thematic in-depth interviews followed. After the interviews a visit was paid where I could see the premises used of wine tourism as well as the cellars. It provided me with additional points of reference in implementing the research.

The questions were thematically built and managed but there was room for discretionary response and detailed explanations.

The first few questions were about the personal particulars of the respondents: gender, age, qualification and profession, then we talked about their enterprises with the characteristics. Then questions on wine production followed asking about accommodation, analysing profiles and personal experiences, as well as the breakdown of guests.

3.3.1. Presenting respondents, the descriptive statistical analysis of responses

Analysis started with the introduction of the responses to general questions. All the 37 respondents answered to the following questions so they are presented separately, as well. Twenty-four percent of the respondents are women and nearly 76% are men. This proportion suggests that wine making is still a masculine job predominantly.

Regarding age, 32.43% of the respondents are between 30 and 40 so they are relatively young. Regarding breakdown, the proportion of those above 40 is a bit more than 51%. I am pleased to see that almost 49% of the respondents between 20 and 40 are represented, so it can be concluded that this profession has continuous supplies. It also turns out from the interviews that not only the love of the profession but also managing the company is inherited in small-and medium sized family wineries so this also justifies the relatively high proportion of the young respondents (Figure 9).
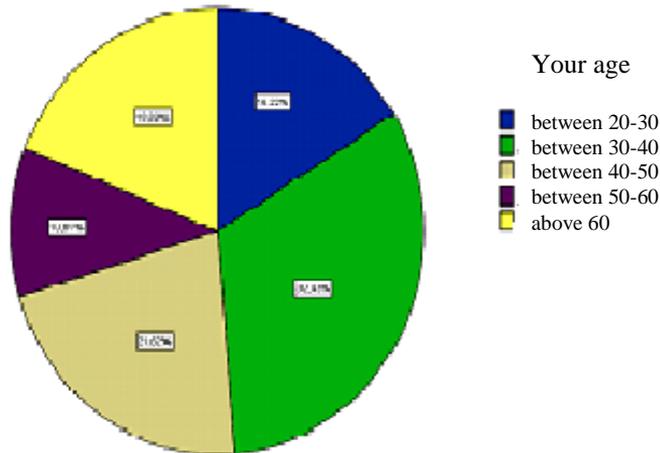
Figure 9. **Breakdown of respondents by age**
Source: author's own compilation based on analysing in-
depth interviews, 2015.

Regarding qualification the interviewees have at least a secondary school certificate (16%) but most of them (84%) have a degree. It is important as they possess better skills and competencies not only when dealing with guests and wine production but also in marketing and they can reach support easily and safeguarding their interest can be more efficient.

In terms of their professional qualification viticulturist and viniculturist dominate (67.6%) and 8.1% of the respondents have agricultural qualification while only 5.4% are qualified in tourism. The remaining 18.9% have other qualifications among them economists or the likes but it is interesting to note that there is a teacher of Mathematics and Chemistry or a mechanical engineer among them, as well.

Regarding the respondents' activities they are predominantly engaged in wine production (89.2%) and a few of them declared to be involved in tourism (10.8%). It is important for me when assessing the results that wine making is the stronger area. It is also in connection with the fact how important the respondent thinks catering and hospitality is and what connection exists between tourism and wine production.

In terms of business forms, Ltd (limited) is most typical with its proportion of above 40% followed by independent entrepreneurs with 35%. Bt. (unlimited partnership) is also typical (13.5%) mainly selected by traditional family wineries. 54.05% of the enterprises have been running for more than 10 years in this business form but the proportion of those who operate in

their current form for more than 6 years is also high (one-third of the enterprises). The proportion of the relatively young enterprises (approximately 16%) shows that the younger generation also finds a secure future in wine production activity and selling the related services.

3.3.2. Conclusions drawn from the in-depth interviews

1. Regarding the gender and age of the respondents we can state that the proportion of those under and above 40 is nearly equal and within this the proportion of women is 24.3%. Furthermore, it can be concluded that there are more and more endeavouring and professionally highly qualified young who can keep pace with the technical challenges of the era and can quickly adapt to modern challenges that reflect the demanding needs of the guests.

2. Most respondents confessed to be a wine maker primarily and they deal with tourism and hospitality as an ancillary activity or by integrating it they offer a complex service.

3. From wine tourism those have the biggest profit share whose primary profile is this and wine making is pushed in the background. However, at present the homogeneous and not mixed profile is typical of the sector.

4. Project applications demand a high proportion of own resources, which can be a hindrance. As this proportion is high, participation in projects is not attractive or not possible for them.

5. There is an improving tendency in the number of overnights. According to the professionals dealing with wine tourism among the respondents more and more tourists spend at least two or more nights in accommodation types connected with wine.

6. There are enterprises whose main profile is wine tourism and they sell their produced wines exclusively through this market segment. They would like to extend the range of their wine tourism services.

7. A two-way process can be experienced in wine production and wine tourism on the market. Those who regard tourism as their primary activity tend to improve it in the future while for those who did not select this profile entirely (n<15% share) grape production and wine making is more important and this field is prioritised. It may presumably lead to the clearance of the market and rather enterprises with one single profile are set up while those with mixed profile will be in the background.

8. The young would rather plan for the long term in wine tourism and invest into this segment while the older generation only deals with the well-known and established wine making. It means that the young should be targeted in wine tourism as they are more open to it.

9. Enterprises in wine tourism only rarely deal with one single activity. The main sources of their income are wine tasting, visiting cellars and vineyards and selling wine, which is also supported by the fact that they sell their own wines on the spot and do not produce for trade networks.

10. The enterprises in wine tourism primarily target adult companies or excursionists and the services are confined to wine consuming programmes primarily but they are also open to other cultural needs, among them, the local ones.

11. Enterprises in hospitality possess guest houses or pensions but they do not make full use of the opportunities provided by the internet.

12. Although it was not a direct question in the questionnaire but the opportunity of a cooperation was welcome with the possible organisation of the wine and grape cluster. Most respondents expressed their positive opinion about this issue.

3.4. The SWOT analysis of the wine and grape industry

It is necessary to survey the present situation of the Hungarian wine and grape industry by a SWOT analysis and create a successful strategy based on this.

The accession to the Union was a great challenge for the players in the wine and grape industry and the restrictions due to overproduction have favoured the producers from the New World. Given the fast pace of changes, it is necessary to analyse the strengths, weaknesses, opportunities and threats (Table 10, Figure 10).

Table 10: **The SWOT analysis of the wine and grape industry**

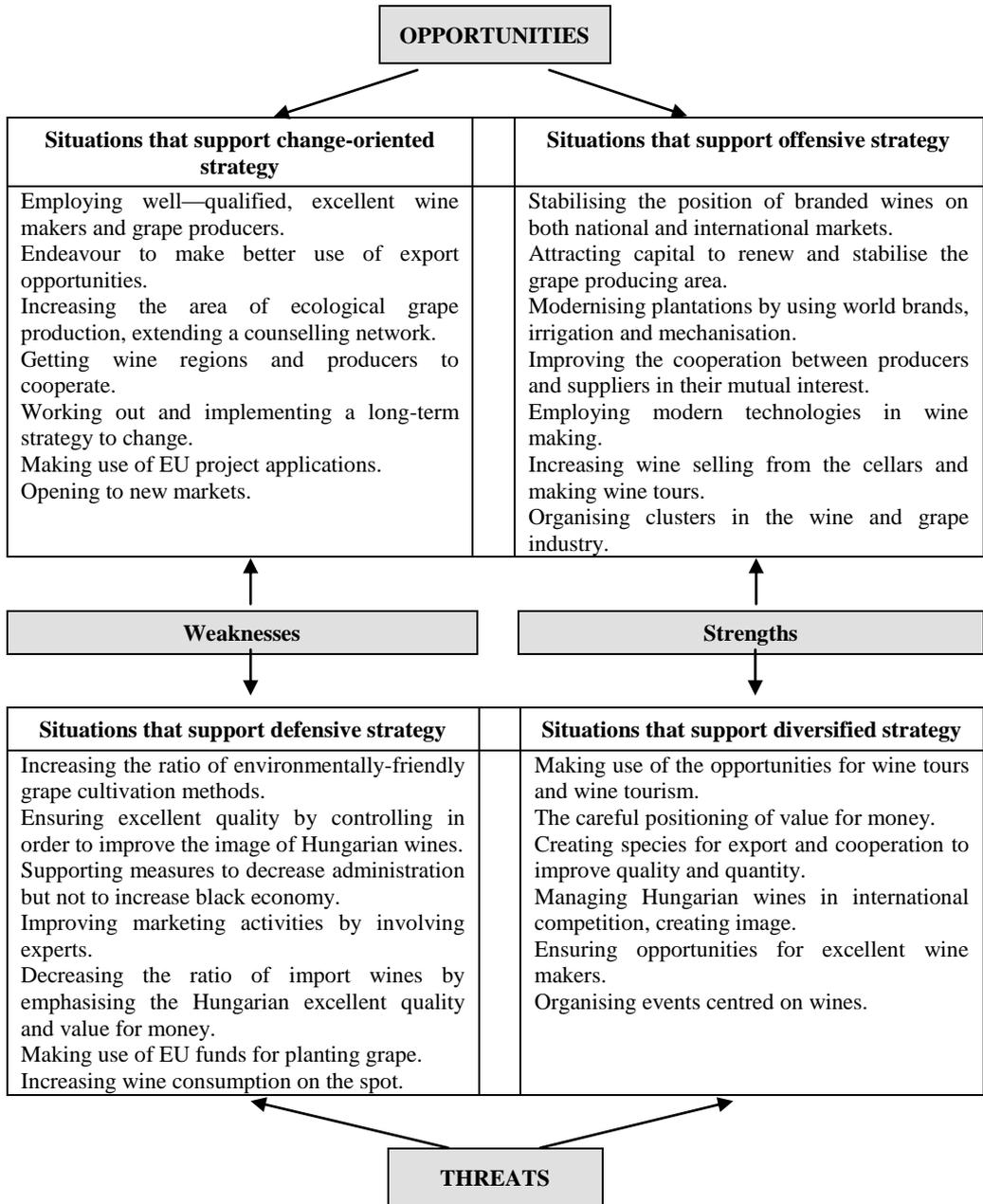| STRENGHTS	WEAKNESSES
- Renowned traditions in grape production and wine making. - Significant national consumption, most of the Hungarian wine production is taken by the domestic market. - Cheap input sources in manpower and land. - Hungarian wines compete well in international wine competitions. - The unique climate of the Carpathian Basin is excellent for white wine and in some places, for red wine. - There is a 'wine consuming elite', the group of knowledgeable people in wines. - The infrastructure of domestic wine tourism is in progress. - We have higher education for winemakers of proper standard. - There are excellent wines that embody a brand (Tokaji aszú, Bull's Blood of Eger). - Wines are popularised at traditional events.	- The frequent changes in the technological and economic regulatory system. - There are too many old plantations due to lack of capital. - Heterogeneous production and product structure. - Different years and quality problems arising from it. - Complicated administration and selective control (affecting the registered ones). - Low average grape yields. - Weak community marketing and, as a result, no reputation. - Lack of the common image for Hungarian wines. - Influx of uncontrolled imported foreign wines. - Limited tools in communication and low level of assertiveness. - Partial loss of the Eastern markets. - Lack of national and regional cooperation between wine regions and producers. - Not satisfactory consumption culture. - Lack of long-term sensible industrial strategy. - Problems of efficient quality control. - At present we are not able to represent ourselves with a high standard product in a big amount continuously in international markets.
OPPORTUNITIES	THREATS
- Regaining the lost export markets. - Attracting domestic and foreign capital in the industry. - Making efficient use of EU support. - Carrying out ecological grape production. - Stabilising and increasing export market positions by improving quality. - Growing grapes on modern, irrigated and mechanised plantations and exporting wines must be considered. - Popularising our best known wines (Tokaji aszú, Bull's Blood of Eger) abroad. - Cooperation to be able to export products of similar quality in bulk continuously. - Engaging and using significant sources to create the image of the Hungarian wines on international markets. - Setting up and operating wine and grape clusters in certain significant wine regions.	- Further decrease in production area due to lack of profit. - Significant appearance and representation of masses of import wines on the Hungarian wine markets. - Decreasing export opportunities. - Appearance of foreign wines in the segment. - Badly positioned value for money and consequent market loss. - Over-appreciation of flagship wines and cutback on turnover. - Narrowing export opportunities due to bad species. - Increasing neglected, old grape areas, risk of infection, reduced yield. - Forfeiting scandals, the bad impact of weakening quality on image. - Lack of well-qualified young grape producers and wine makers.

Source: author's own compilation

OPPORTUNITIES	
Situations that support change-oriented strategy	**Situations that support offensive strategy**
Employing well—qualified, excellent wine makers and grape producers. Endeavour to make better use of export opportunities. Increasing the area of ecological grape production, extending a counselling network. Getting wine regions and producers to cooperate. Working out and implementing a long-term strategy to change. Making use of EU project applications. Opening to new markets.	Stabilising the position of branded wines on both national and international markets. Attracting capital to renew and stabilise the grape producing area. Modernising plantations by using world brands, irrigation and mechanisation. Improving the cooperation between producers and suppliers in their mutual interest. Employing modern technologies in wine making. Increasing wine selling from the cellars and making wine tours. Organising clusters in the wine and grape industry.

Weaknesses	**Strengths**

Situations that support defensive strategy	**Situations that support diversified strategy**
Increasing the ratio of environmentally-friendly grape cultivation methods. Ensuring excellent quality by controlling in order to improve the image of Hungarian wines. Supporting measures to decrease administration but not to increase black economy. Improving marketing activities by involving experts. Decreasing the ratio of import wines by emphasising the Hungarian excellent quality and value for money. Making use of EU funds for planting grape. Increasing wine consumption on the spot.	Making use of the opportunities for wine tours and wine tourism. The careful positioning of value for money. Creating species for export and cooperation to improve quality and quantity. Managing Hungarian wines in international competition, creating image. Ensuring opportunities for excellent wine makers. Organising events centred on wines.

THREATS	

Figure 10. **The strategic analysis of the wine and grape industry**
Source: author's own compilation

3.5. Summary of accepting or rejecting the hypotheses

Based on my primary and secondary research I present my statements made in connection with my hypotheses (Table 11).

Table 11: **Justifying the hypotheses**

	hypothesis	**justified**
H.1.	Wine used to be part of tradition, culture and everyday meals in wine producing and wine consuming countries. It has been changed by now, which poses a challenge to marketing and sales.	YES
H.2.	We do not make full use of our country's potential and the annual grape production is not sufficient to meet the minimum needs of the wine sector. It is our strategical interest to improve viniculture and viticulture.	YES
H.3.	Purchasing and consuming wine do not only affect homogeneous population as it changes dramatically on the basis of the single characteristics (gender, age income, qualification, domicile etc.).	YES
H.4.	Lack of cooperation weakens competitiveness. Forming an operating wine cluster could be justified in some wine regions.	YES
H.5.	The more and more intense competition underpins the role of wine marketing. Quality is becoming more and more important and wine tourism may play a significant role in sales based on trust.	YES
H.6.	Project applications favour strong capital so the competitiveness of family and small-scale farms is getting weaker and weaker. Trade is controlled by multinational food chains.	PARTIALLY
H.7.	Producers from the New World are competitive and we cannot compete with them but new marketing and sales can improve the situation.	YES

Source: author's own compilation, 2015.

4. NEW AND NOVEL SCIENTIFIC RESULTS

The new and novel scientific results of my dissertation are summarised in seven points.

1. **The data from the literature review and my questionnaire survey proved that wine used to be part of tradition, culture and everyday meals in wine producing and wine consuming countries. It has been changed by now, which poses a challenge to marketing and sales.**

2. **I have justified by using modern mathematical and statistical instruments that we do not make full use of our country's potential and the annual grape production is not sufficient to meet the minimum needs of the wine sector. It is our strategical interest to improve viniculture and viticulture. Our fallback in the area of grape plantation, quality and quantity is significant.**

3. **The results of both the secondary and primary research prove that purchasing and consuming wine do not only affect homogeneous population as it changes dramatically on the basis of the single characteristics (gender, age income, qualification, domicile etc.).**

4. **Based on synthetizing the in-depth interviews it is proved that lack of cooperation weakens competitiveness. Forming an operating wine cluster could be justified in some wine regions and could improve the vulnerability of grape producers.**

5. **The results of the calculations and the complementary in-depth interviews prove that the more and more intense competition underpins the role of wine marketing. Quality is becoming more and more important and wine tourism may play a significant role in sales based on trust.**

6. **The results of the secondary research and the in-depth interviews prove that project applications favour strong capital so the competitiveness of family and small-scale farms is getting weaker and weaker. Trade is controlled by multinational food chains. In international food trade concentration is gaining more and more ground, which holds true for the wine industry, as well.**

7. **For the question in the questionnaire of how they see the future competitiveness the respondents stated that producers from the New World are competitive and we cannot compete with them but new marketing and sales can improve the situation.**

5. CONCLUSIONS AND RECOMMENDATIONS

My conclusions and recommendations are connected to my objectives outlined in the introduction. I have analysed the grape production of the world, the EU and Hungary in details. In addition to the decreasing grape production area the amount of produced wine does not decrease. On the contrary, export sales boost.

Countries from the New World have become the main exporters due to their developments. Despite it, still Europe rules the world market of wine.

On a national level concentration is gaining ground in food trade. This tendency holds true for the wine industry. The vulnerability of wine makers to retail networks has been increasing in the last two decades. The majority of wine selling networks are owned by multinational chains.

At present Hungary does not belong to the leading wine producing countries regarding its area of grape production or the quality of its wines. The main reasons of this fallback can be the weak profitability of grape production, and, consequently, a constant decrease in the area and loss of markets.

Wine and grape production was performing weakly in ten years' time only the profits made recently are promising. Due to significant cuttings, changes in technology and insufficient replacements the role of employment has also become less important. However, we cannot deny the necessity of cooperation and integrating the producers who have weak bargaining power. There would be a need for creating clusters in the industry.
Our wine consumption has slightly decreased but it is still important. Our culture of wine consumption still lags behind that of the great European countries.

Wine consumers can be classified into segments but there is no unanimous agreement about it. The assessment of Hungarian wines on the market of the world and the EU is not favourable as there is no established and introduced brand name. With a good brand name excellent wines can sell well but nowadays marketing is defined by the consumers and they make decisions.

Wine tourism and wine tours are spreading but not dynamically enough.
Wine tourism is an important part of tourism today and its versatility is attractive.

There are a significant number of but relatively small wine regions in our country. At present their number reaches 22. In my dissertation I have analysed the grape production results of the farms of the farm accountancy data network based on AKI data in details. The industrial income has significantly increased in recent years. The selling price of wines is continuously but not dramatically increasing.

My primary research was based on questionnaires. This chapter is an essential part of my dissertation. Of the 800 questionnaires sent out, 518 could be assessed by using SPSS 20.0 programme. Factor analysis was carried out on the most important aspects of wine consumption. As the statistical analysis is detailed in the dissertation, I just make my most important conclusions and recommendations.

The main strategic steps that are necessary to improve the situation are the following.

- working out and continuously implementing a long-term strategy;
- improving the training of wine makers and train excellent wine makers;
- ensuring excellent quality by controlling;
- making use of EU project applications to renew grape production areas;
- making use of the opportunities for wine tours and wine tourism;
- creating image, e.g. Tokaji aszú, Bull's Blood of Eger;
- increasing wine consumption and sales on the spot;
- stabilising the position of branded wines on both national and international markets;
- attracting capital to renew and stabilise the grape producing area;
- modernising plantations by using world brands, irrigation and mechanisation;
- improving the cooperation between producers and suppliers in their mutual interest;
- employing modern technologies in wine making;
- increasing wine selling from the cellars and making wine tours;
- organising clusters in the wine and grape industry.

6. LIST OF PUBLICATIONS ON THE TOPIC

Article in journal

In a foreign language

1. **Pallás, E.** - Nagy-Kovács, E. (2013): Gaining conscious experiences on wine in the wine region of Franken, In: Economics of Sustainable Agriculture, Scientific Book Series, Szent István University Publishing, Gödöllő, pp. 123-135. HU ISSN 2062-445 X.
2. **Pallás, E.**- Nagy-Kovács, E. (2012): Price effects in the Hungarian wine product chain, In: Economics of sustainable agriculture, Scientific Book Series, Szent István University Publishing, Gödöllő, pp. 51-62. HU ISSN 2062-445X
3. Nagy-Kovács, E. – **Pallás, E**. (2011): The economic questions of the grape and wine sector. In: Economics of Sustainable Agriculture, Scientific Book Series, Szent István University Publishing, Gödöllő pp.109-132. HU ISSN 2062-445 X.

In Hungarian

4. **Pallás, E.** (2014): A borturisztikai élmény szerepe a vidéki térség fejlesztésében, GRADUS Vol 1, No 2 :(2) pp. 164-170. ISSN 2064-8014
5. **Pallás E**. (2013): A borturizmus minőségbiztosításának megjelenése a vendéglátásban, rendezvényeken és a boros szálláshelyeken, ACTA CAROLUS ROBERTUS 3:(2) pp. 115-122. ISSN 2062 8269

Published in the resume volume of conferences
In a foreign language

6. **Pallás, E.** (2015): Vinothek, als komplexe weintouristische Dienstleistung, In: Darabos, F. - Ivancsóné Horváth, Zs. (szerk.) Turizmus határok nélkül: VII. Nemzetközi Turizmus Konferencia, Győr, Nyugat-magyarországi Egyetem Kiadó, pp. 63-68. ISBN:978-963-334-234-3
7. Kovács, T. – Dávid, L. – Bujdosó, Z. – Kovács, Gy. – Mátyás, Sz. – **Pallás, E** (2015): The theory and process of socio - economic shrinking in Hungary giving the example of the Nagykunság Region (Kipchak Land), In: Kubeev, E. K. (szerk.) Scientific and Cultural Inheritance of

Academician E. A. Buketov, Karagandy, Kazahsztán, Karagandinskij Gosudarstvennyj Universitet, pp. 474-481. ISBN:978-9965-39-262-7 (T.2)

8. Parikshat, S. M. - Bujdosó, Z. - Dávid, L. - Kovács, Gy. - Major-Kathi, V. - **Pallás, E.** (2014): Effects of Customer Trust and Online Experiences in Building Hospitality Brands,. Ekaterinburg, Oroszország, Uralskoe Izdatelstvo, Branding of small and medium-sized cities in Russia: experience, problems and prospects, ISBN:978-5-7996-1510-9

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