SEGMENTATION OF THE ROMANIAN WINE MARKET:
AN EXPLORATORY STUDY

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Abstract: French companies in the wine industry are facing a decline in demand on their domestic market and an increasing competition on their traditional export markets. A solution for French companies could be to seek new outlets. Eastern and Central European countries, because of their fast economic growth and of the recent evolution of their consumption modes, are very attractive market targets. In order to better understand these emerging markets, this article analyses wine consumption using a sample of consumers of the area of Banat in Romania. From data collected using a questionnaire, it aims describing and identifying the principal characteristics and determinants of this consumption and proposes a market segmentation. With this intention, we use two different approaches of market segmentation (one-dimensional and multidimensional) based on socio-economic and behavioral criteria. We obtain five segments which are different by the importance given to various product characteristics and the modes of data processing. Four of them describe the principal characteristics of the consumers interested by wine, whereas the fifth gathers the individuals not interested by wine.

Key words: Consumer behavior, Consumption, Marketing policy, Romania, Segmentation, Wines.

INTRODUCTION

Rich of 250.000 hectares of vines producing 13 millions hectoliters of wine, Romania is among the first wine countries of the world. It occupied, in 2004, the rank of 12th world wine producer, just after Portugal. It is also a country of old wine tradition, if we can read that vine would be cultivated there since Antiquity, vestiges attest a wine activity going back to six millennia and already present when the Greeks colonized banks of the Black Sea 2.700 years ago. During the XXe century, and quite before for certain prestigious wines like that of Cotnari (area of Moldavia), the Romanian wines enjoyed a rather good international reputation. They nevertheless were affected during this century by two great phenomena:

- the first one is the fact that current type of vines were imported from France, Germany and Italy, and acclimatized to Romanian conditions (grey pinot, pinot noir, chardonnay, Italian Riesling, merlot, white sauvignon, cabernet-sauvignon, etc). Even if some autochthones type of vines remained, the epidemic of phylloxéra XIXe century is the principal explanation of this phenomenon,
- the second one is related to the under-exploitation of geological and climatic conditions particularly favorable to quality. In spite of these conditions, Romanian vineyard potential remained unexploited because of an export turned towards the only USSR. During the

communist era, the policy of rationalization did not always go hand in hand with quality. Even now, more than a half of the production is still ensured by large co-operatives. However, this producer country of long date, knows recent evolutions in terms of surface planted (according to the Romanian National Statistics Institute the area under vines in production passed from 223.600 ha to 247.500 ha between 1990 and 2000) and especially of quality (on 402 types of listed wines, 118 are wines with denomination from origin - VOD - and 231 with denomination of origin and degree of quality - VDOC -). These evolutions are full of promises for the years to come. The quality increased since the retrocession of the land to the former owners began during the 1990's. Aware of its potential (varieties of the geographical situations, many type of vines, etc), Romanian wine industry tends now to develop around two axes: massive production of wines of average quality and making of top-of-the-range wines able to compete with the European high-class wines. In 2004, Romanian wine exports rose to 35 millions euros with a keeping of sales towards the traditional destinations (Germany, United Kingdom, Belgium, Russia) and significant rises observed on new markets (the United States, Denmark, Israel and Japan).

In parallel, consumption on the domestic market, although enough stable in volume after a reduction at the end of the years 1990 (Onivins stats 2004), also increases bordering the 200 million euros in 2004 for a yearly consumption of 27 liters per capita. This consumption of wine per capita, relatively significant and old, could be compared to the modes of consumption characterizing the countries of Western Europe having a strong wine tradition such as France, Italy, Portugal, Spain, or, Greece. Paradoxically, it is necessary to point out that 59 % of Romanian prefer the white wine, 35 % the red wine, 33 % the half-soft wine, 21 % the dry wine and 48 % appreciate the "spriț" (mixture of white wine and aerated water). It should not either neglect their taste for strong alcohols (țuica, palinca, etc), but also the strong tradition of the beer industry which makes of Romania the 24th world producer with most of the breweries belonging now to international groups like Brau Union (Austria), Carlsberg (Denmark) or Efes (Turkey). These tendencies on alcohols and wine consumption are quite similar to those observable in the Scandinavian and Anglo-Saxon countries (Germany, Norway, Sweden, Ireland, United-Kingdom, etc.) and even of those of the "New World" (Australia, Chile, South Africa, Uruguay, Brazil, the United States, etc).

Taking into account these characteristics of the Romanian wine industry and, more largely, the fact that Romania is entering the European Union with an economy in full transformation, at the time even where the wine market must face an increasing competitive pressure due to globalization and where actors of the wine industry seek new outlets (D'Hauteville *and al.* 2004), it seems to us interesting to study wine perception and consumption in this country. A quantitative study was carried out during the year 2005 on a sample of Romanian consumers resulting in a market segmentation using the principal characteristics and determinants of their consumption. After a review of the literature on wine market segmentation in a context of globalization (2.), two steps of segmentation, being based mainly on socio-economic and behavioral criteria, are successively mobilized: one-dimensional (3.) and multidimensional (4.).

1. THE WINE MARKET: WHICH SEGMENTATION?

Being production orientated for a long time, the wine sector must now take new orientations to adapt to new consumers behaviours and to adopt modern marketing strategies already used by firms of the "New World". In this context, an in-depth knowledge of the modes of

purchase and consumption becomes a factor of survival. Segmentation then constitutes one of the essential stages in the construction of any marketing policy in the wine market.

1.1. Growing interest in segmentation

Being opposed to the less and less relevant mass marketing confronted with consumer behaviors differing by many aspects (characteristic of the individuals, moments and place of consumption, etc), segmentation found during last decades an growing interest. It is moreover reinforced by the multiplication of advertising media and distribution channels which make "difficult and expensive to address to an audience of mass" (Kotler and Dubois, 2003, p. 293). Thus, more and more companies adopt "segmented", "niche", or even a "personalized" marketing (marketing "one to one"). Concerning the wine industry, Mora and Castaing (2005) affirm that market segmentation constitutes from now on the heart of the "good practices in marketing of the wine" in an industry facing "a consumer with an astonishing behaviour, a world overproduction and a competition coming from all over the world".

Dodd and Bigotte (1997) propose a synthesis of segmentation advantages and disadvantages. They come to the following conclusion already observed in many fields: if segmentation can generate additional production and research costs to reach different targets, these effects are counterbalanced by a greater effectiveness of the promotion and publicity campaigns. More generally, Lendrevie and *al.* (2003) affirm that every company will seek to segment its markets and to adapt its marketing policy to different segments for three main reasons: to answer better than the competitors to customers needs, to exploit new market opportunities using innovations and, finally, to concentrate its forces on a part of the market in order to preserve or conquer market shares.

Any segmentation process breaks up into several phases: definition of the market, choice of the units of observation, choice of a segmentation model, choice of the segmentation variables, choice of an assignment method, description and validation of the segments obtained. For the development of a wine activity, knowledge of the markets is a first step of a marketing policy that "must be integrated in the management at the same level as production or financial management" (Rouzet and Seguin, 2004, p. 35).

In practice, several methods exist to segment a market. For markets of consumption products like the wine market, Kotler and Dubois (2003) propose to separate the variables used in two categories: one refers to the intrinsic characteristics of consumers and breaks up into three criteria of segmentation (geographical, socio-demographic and psychographic), the other returns to the behavioral criteria of segmentation (situations of purchase, advantages sought, mode of use, etc). For their part, Lendrevie and *al.* (2003) propose a broader classification of the segmentation criteria. They retain four principal categories: demographic criteria (sex, age, size and structure of the family), geographical (areas, city or not, climate, etc.), socio-economic (incomes, level of study, professions, etc.), personality and life styles (psychographic profiles, communities of life or interest, etc.), behavioral criteria (user social position, fidelity, role in the process of purchase, quantities consumed, etc.), and criteria of required advantages (utility, artistic, etc).

Whatever the selected segmentation method, criteria used in practice are subjected to many variations. Statistical tools can help to determine segmentation relevance. However, it is important to know if the segmentation obtained is effective and leads to profitable marketing

strategies. Six criteria are commonly used to evaluate segmentation basis (Wedel and Kamakura, 1998):
- Identifiability: extend to which distinct segments can be identified,
- Substantiality: related to the size of the segment,
- Accessibility: degree to which segments can be reached with promotional and distributional efforts,
- Stability: temporal dynamics of segments,
- Responsiveness: whether segments respond uniquely to marketing efforts targeted at them,
- Actionability: extend to which the segments provide a basis for the formulation of effective marketing strategies.

1.2. Heterogeneity of consumers and globalization: which segmentation of the wine market?

In a context of globalization, companies are confronted with a strong heterogeneity of consumers needs. It is thus necessary to structure this heterogeneity. With this intention, two approaches are possible: multi-domestic in which each country represents a separate segment, global or pan-regional which is an integrated strategy across national borders. In the first approach, products and marketing are adapted to satisfy the local needs, companies can then use standard segmentation techniques developed for national markets (Jeanney and Hennessey, 1998). With globalization, differences between countries grow blurred what makes the multi-domestic strategies less relevant (Yip, 1995). Companies tend to aim at international market segments which transcend national borders so as to obtain reductions of cost thanks to economies of scale, improvement of products quality, and increased bargaining and competitive power (Levitt, 1983). The final objective is to profit from the combined benefits of standardization and adaptation to the consumers needs. Let us note that studies on international segmentation are especially related to countries of the Triad (Steenkamp and Ter Hofstede, 2002). A few studies exist including emerging countries like Rumania.

There are a growing number of studies on each national market, (Anderson, 2004; Mora and Castaing, 2005). But, are these studies still relevant for world market segmentation? Which type of segmentation must be chosen? Spawton (1998) states that wine industry was subjected to literally all types of segmentation. Helping us to cope with this multiplicity, Bruwer and *al.* (2002, p. 221) sustain that whatever the type of segmentation chosen, nine basic variables are mobilized: quality, consumption, risk reduction, occasion based, cross-cultural, behavioral, involvement, geographical and wine-related life styles.

In spite of the will to have a pan-national segmentation of the wine market, its construction proves rather complex and poses specific problems (Steenkamp and Ter Hofstede, 2002). Two segmentation bases are, in this case, possible: the first based on observable variables, the second based on values or life styles. But none of these two segmentation basis satisfies the six criteria synthesized by Wedel and Kamakura (1998). Indeed, the first makes it possible to obtain accessibility and stability, but actionability and sensitivity remain weak to develop international marketing strategies. As for the second, if the segmentation basis is founded on values, accessibility of segments will be weak because the socio-demographic profiles are badly defined. If the segmentation basis is founded on life styles, identification is difficult. In spite of these limits, we note that this second basis remains privileged in pan-national segmentation studies.

Nevertheless, we point out that pan-national segmentations of the wine market are very few. Among most known are *Ernst & Young* (2000) and *Rabobank* (2003) studies. Prices, which

are regarded as the major criterion in consumer choice, constitute the segmentation basis. Table 1 specifies the various characteristics associated with this segmentation.

Table 1. Wine segmentation in Europe		
Segments	**€ / bottle**	**Requirement**
Icon	> 150	Long-term image, complexity, cellaring potential, high scores among critics,
Ultra-premium	14 - 150	Typical, varietal or goof blend, more complexity, origin, image, quality brand
Super-premium	7 – 14	In the higher price ranges: image, cellaring potential, complexity, well received by critics
Premium	5 - 7	Brand recognition, origin, full body, more character, rich, typical for single, or two-varietal blend
Popular premium	3 - 5	Combination of character and accessible, recognizable characteristics of variety, origin, brand
Basic	> 3	Varietal, fruit, accessible, brand

Source : Rabobank International (2003)

This rather general segmentation is adapted to analyze competitiveness of the large wine producer countries. It appears nevertheless insufficient to examine consumer behavior and to construct companies' strategies on it.

Solving International (2004) made a study on wine market segmentation using a sample of consumers living in a hundred of different countries. It is based on consumers' expectations. The segmentation basis rests on five criteria: price, taste, geographical origin, function and brand. Four segments of consumers are identified: "food-functional" (safety, regularity, etc), "social-seduction" (search of a standard, a precise taste), "sensory-testing" (search for specific tastes and particular flavors) and "cultural-art" (exceptional emotions and feelings). It comes out from this study that the segment "seduction" represents more than 50 % of the consumers, so we could suppose the existence of under-segments.

2. INTEREST OF UNIDIMENSIONAL SEGMENTATIONS

To better understand the Romanian wine market, we managed a questionnaire on the wine consumption modes. Preliminary analyses of the results obtained make it possible to release some main tendencies and to open tracks on the various possible segmentations. These analyses have for main objective to construct a pan-national segmentation. The criteria of such segmentation must be as simple as possible while being released from all national specificities. To achieve this goal, one-dimensional segmentation basis seems the most suitable tool. Among the many possible criteria of segmentation, we retained those which make it possible to appreciate if the most known pan-national segmentations apply to the Romanian market.

2.1. Questionnaire description[1]

Nowadays, few academic researches are devoted to describe wine consumption in Romania. We thus carried out a questionnaire with a broad spectrum of questions integrating the principal criteria of segmentation suggested in the literature.

The questionnaire is divided into three parts. The first aims at understanding the modes of wine consumption through questions about:
- consumption motives, purchase process (Who is the purchaser? Which is the distribution system used? Which is the entourage influence?), purchases frequency and occasions of consumption (at home and outside);
- and the structure of products bought (Place of wine compared to other alcohols? Importance of Romanian wines? Preferences for foreign wines? Proportion of purchases according to colors and labels of origin?). To illustrate this point, we can now propose the following results concerning the quantitative variables (Table 2).

	Part of Romanian wines bought	White	Red	Rosé	Denomination of Origin	Price paid for 1 bottle	Price paid for 1 bottle in special situation
Table 2: Some wine consumption characteristics (quantitative variables)							
Mean	71 %	37 %	38 %	16 %	13 %	3,36 €	11,95 €
Standard deviation	0,31	0,23	0,24	0,15	0,28	2,32 €	9,58 €

The second group of questions is related to product attributes expressed, for example, in terms of price, quality, taste, packaging, complexity, reference to countries of strong tradition in viticulture or to countries of the "New World", escape, etc.

The third gathers socio-demographic criteria (age, sex, marital status, level of study, profession, incomes, place of residence, etc).

Our sample is composed of 179 individuals residing in the south-west of Romania (the majority are students at the University of West Timisoara, Banat). Due to the bias and small size of the sample, our objective is not to use this investigation to make forecasts of consumption, but simply to try to find major characteristics, if any, in wine purchase and wine consumption (essentially by young people) in Romania.
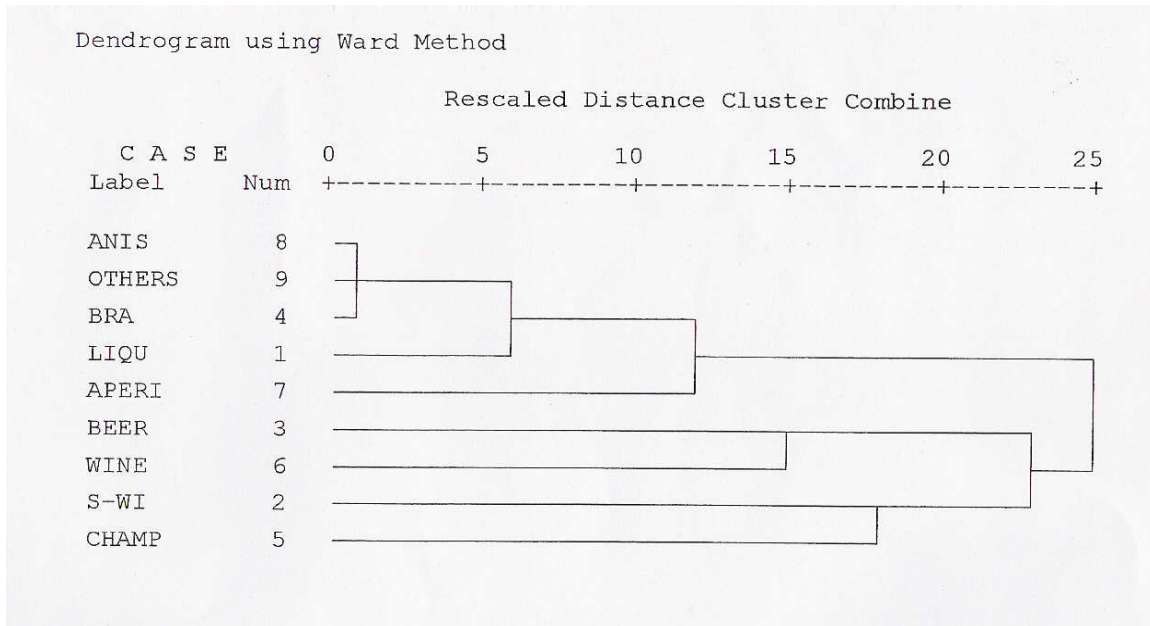
2.2. Wines and alcohols: hierarchical clustering

In order to better understand wine consumption and purchase, we beforehand studied the place of wine among various alcohols. We carried out an ascending hierarchical clustering analysis using the Ward aggregation method in order to locate the wine within various consumed alcohols. As we can see on tree n° 1, the analysis separates two groups:
- beer, wine, sweet wines and champagne. Beer and wine are classified together but they remain rather distant in the mind of the individuals of the sample,
- aniseed drinks, strong brandies, hard liquors, and various aperitifs (martini, Porto, etc) on the other side.
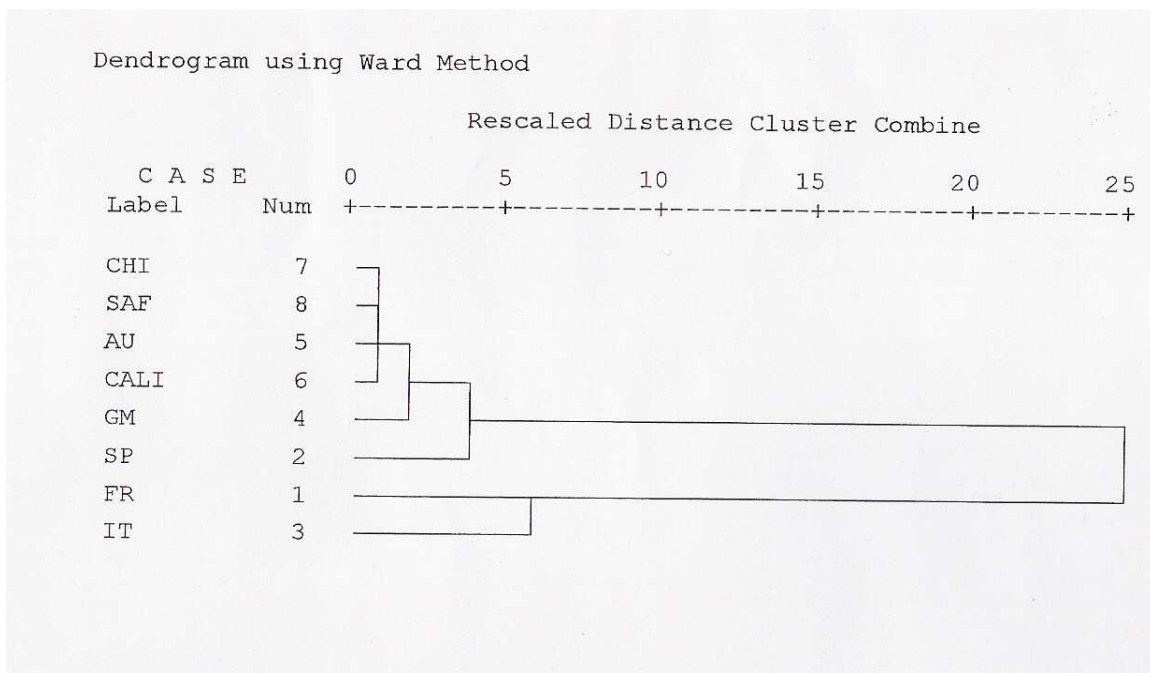
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[1] Our questionnaire is largely inspired by one constructed by N. Guibert (PRATIC, University of Avignon) in a study (Ecos-conicyt) on international comparison of wine markets.

Tree n°1: Wine position among alcohols

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Dendrogram using Ward Method

                            Rescaled Distance Cluster Combine

     C A S E        0         5        10        15        20        25
    Label    Num    +---------+---------+---------+---------+---------+

    ANIS      8      ─┐
    OTHERS    9      ─┤
    BRA       4      ─┘
    LIQU      1      ───────────────────┐
    APERI     7      ─────────────┘
    BEER      3      ───────────────────────┐
    WINE      6      ─────────────────┐
    S-WI      2      ─────────────────────────┐
    CHAMP     5      ─────────────────────┘
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To better understand consumers' behaviour, we also tried to appreciate how they perceived various foreign wines. This aspect is all the more significant as the Romanian wine market falls under the process of globalization, which will be accentuated by the approaching entry of this country in the European Union. Thus, such information can have a central importance for Romanian producers or importers for their competing positioning. Tree n° 2 illustrated a clear separation between French and Italian wines on one hand and all the other wines on the other hand. Among the latter group, wines of the "New World" are gathered; they are dissociated from German and Spanish wines.

Tree n°2: Structure of preferences over foreign wines

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Dendrogram using Ward Method

                            Rescaled Distance Cluster Combine

     C A S E        0         5        10        15        20        25
    Label    Num    +---------+---------+---------+---------+---------+

    CHI       7      ─┐
    SAF       8      ─┤
    AU        5      ─┤
    CALI      6      ─┘
    GM        4      ─┐
    SP        2      ─┤
    FR        1      ───────────────┐
    IT        3      ───────┘
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2.3. One-dimensional segmentations

To facilitate the analysis of various national markets and their comparison, it would be very useful to find a common one-dimensional segmentation basis. If the discovery of such criteria is difficult, we propose nevertheless to study, on one hand, the existence of a socio-demographic criterion and, on the other hand, the relevance of price and motivation following the example of great pan-national studies (Solving International, 2004; Rabobank, 2003) in this field.

Socio-demographic criteria (sex, age, income, educational level, profession, etc.) always structure the wine market (Laporte, 2004). After having tested the capacity of each one of them to be used as a segmentation basis, we found that, due to the nature of the sample, "sex" was the only criterion leading to statistically significant results. The opposition between the sexes is structured by differences in taste:
- very different preferences with regard to alcoholic drinks. A very small proportion of women appreciate strong alcohols and brandies, they prefer sweet wines and champagne in greater proportion than men and beer in smaller proportion. Women are more numerous than men to quote the wine as being their preferred alcohol, but they are also more numerous not to quote wine at all in their first three choices;
- different preferences with regard to the different wines. Women prefer fruity and white wines; they buy and drink less wine than men. With "references in mind", their tastes seem narrower than that of men and "sensitive to price and promotion", they adopt an optimization behaviour. Lastly, we can note that they buy less Romanian wine than men and spend less for a bottle to celebrate an event.

Concerning the relevance of price as a segmentation basis, a first exploratory study (variance analysis for quantitative variables and independence tests for qualitative variables) enabled us to conclude that segmentation based on prices performs poorly on our sample. That does not seem to be due to inadequacy of the price ranges to the purchasing power of the Romanian population. As a matter of fact, the sample distribution between the classes of price is not skewed towards the lowest classes (Basic 10 %, popular premium 19 %, premium 52 %, super premium 16 %, ultra premium 3 %). The only (statistically) significant conclusions we found are related directly or indirectly to price. If drinkers of the basic segment tend to take council of salesmen, consumers who buy in the higher classes of price:
- spend more for one bottle intended for a special event,
- are ready to spend more to obtain a bottle of better quality,
- think that the price is an indicator of quality,
- buy more in specialized stores.

The segmentation based on motivation gives rather good results with regard to various dimensions of wine perception but does not allow going beyond these aspects as illustrated in table 2. The 6 motives (relaxation, conviviality, taste-emotion, tasting, meal, fashion) are not factorable (KMO 0.15) meaning that it is difficult to simplify the structure of the motives suggested. Factorial analysis strongly brings together, "relaxation" and "conviviality" which are opposed to "taste, emotion" and "tasting".

Table 3: Segmentation by consumers motives					
Relaxation	**Conviviality**	**Taste, Emotion**	**Tasting**	**Meal**	**Fashion**
-	-	-	-	-	Lower proportion of Romanian wines
Choice depends on variety	Choice depends on variety	Like full-bodied wine	-	-	Choice depends on variety
-	-	-	-	Take wine with meal	-
-	-	Likely to spend more to obtain quality	Likely to spend more to obtain quality	Likely to spend more to obtain quality	-
Wine is an indicator of social standing	Wine is an indicator of social standing	-	Wine is not an indicator of social standing	Wine is an indicator of social standing	-
-	-	Do not await a precise taste	Do not await a precise taste	Do not await a precise taste	-
-	-	-	-	Higher income level	-

In spite of their specific interest, the preceding analyses did not enable us to obtain a satisfactory segmentation. It is thus advisable to prolong our investigation by the development of a multidimensional segmentation basis.

3. PROPOSAL FOR A MULTIDIMENSIONAL SEGMENTATION

Many methods of multidimensional segmentation are used in the literature; they were introduced in several articles and works of synthesis. The reader can use for example the work quoted above of Wedel and Kamakura (1998) and of Steenkamp and Ter Hofstede (2002). We retained a step common to the majority of segmentation procedures which one can break up into two great stages: (1) construction of the segmentation basis which includes selection and identification of variables which are used to build the segments; (2) the description of the segmentation obtained. Technical realization of these two stages required the treatments described below in figure 1. Purification of the items and factor analysis correspond to the construction of the segmentation basis, whereas the introduction of factorial scores into the data followed by linear regression and variance analyses make it possible to specify the characteristics of the segmentation obtained.

Figure 1. Segmentation procedure
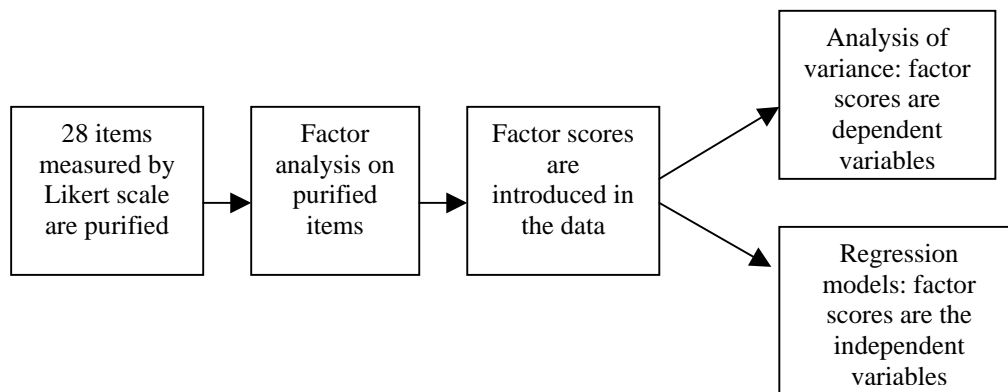
3.1. Reliability analysis

We analyze reliability of the interest for wine measurement using the technique of multiple scales (Evrard and *al.* 2003). The various facets of wine perception and interest are taken into account by 28 items measured by Likert scales. Calculation and analysis of the alphas of Cronbach allowed purification of the measure. Elimination of 5 items ("wine is an indicator of the social status", "disinterest for wine", "complexity", "I am satisfied by the wine I drink, "wine is an alcohol as another") increases total alpha, which means that internal coherence is improved.

The purified scale, composed of 23 items, has total alpha of 0.6989. Since the statistical distribution of alpha is not known, there are no tests in order to make it possible to conclude if this value of alpha is acceptable or not. It is thus necessary to use empirical thresholds retained in the literature. The value of alpha obtained, ranging between 0.6 and 0.8, is considered, for an exploratory study, "acceptable" by Evrard and *al.* (2003, p. 305). Moreover, it is very close to 0.7 which is a value threshold for a "good consistency" on Likert scales according to Vernette (2001). In parallel, we led a similar analysis for consumer not interested by wine. We retained only two items ("I am not at ease in the universe of the wine "and "wine universe does not interest me"). This purified scale has an acceptable total alpha of 0.62.

We then sought if the 23 preserved items could be gathered to express several coherent facets of the interest for wine. We found only two subsets of items having alpha higher than 0.6. The first gathers the items which associate the wine to a geographical area (a country: France, Italy, Germany, Spain, Australia, or "regions of Romania") or with traveling ("the wine, that makes me travel"). Internal coherence is good with an alpha of 0.77. The second associates sensitivity to commercial actions (promotion, publicity) and preference for fruity wines. Internal coherence is just acceptable with an alpha of 0.62.

3.2. Structuring of the variables

Two factor analysis on the purified items (PCA with Varimax rotation) were applied on the preserved items, the first including only items measuring "interest for the wine" (23 items), the second adding the two items measuring the lack of familiarity with the wine world (25 items). We carried out the sphericity test of Bartlett and the adequacy of the sampling test

of Kaiser, Meyer and Olkin to check the factorability of the data, *i.e.* if it is reasonable to seek there common dimensions (factors are not only statistical artifacts). Table 4 shows that factorization is possible but factorability is mediocre.

Table 4. Factorability tests				
	Bartlett's test of sphericity		**Kaiser Meyer Olkin (KMO) measure of sampling adequacy**	
Items	**Chi-square**	**probability**	**value**	**Degree of common variance**
23 items	680	0,000	0,638	mediocre
25 items	757	0,000	0,627	mediocre

The two factor analysis lead to very similar results. We retained four factors which represent dimensions of interest for wine and only one factor for consumers not interested in wine. Variables which contribute to each factor are given below in Table 5 (we retain only correlation coefficients higher than 0.5 (Evrard and *al.* 2003) between initial variables and factors).

Tableau 5 : Factor analysis interpretation		
Factors	**23 items**	**25 items**
1	« To think of Germany, Spain, Italy, Australia, France (*)»	«To think of Germany, Spain, Italy, Australia, *France*»
2	« Promotion », « Publicity », « Fruity »	« Promotion », « Publicity », « Fruity » *« Explain wine »*
3	« Variety », « full-bodied », « Soils »	« Variety », « full-bodied », « Soils », *« fashion »*
4	« Preference for quality », « originality of the bottle »	« Preference for quality », « originality of the bottle »
5	-	« not interested in wine » « not comfortable in the wine universe »

N.B.: differences between the two factor analyses are in italics.
* For France, the correlation coefficient is only 0.48.

Criteria which appear relevant for the segmentation are:
- wine attributes: quality, which is expressed by horizontal differentiation ("fruity ", "full-bodied"), vertical differentiation ("preference for quality"), and evocation ("to think of France, Italy …"),
- information used: information on the intrinsic quality ("type of vines", "soils"), information on extrinsic qualities: price, originality of the bottle, marketing ("promotion ", "publicity").
The two dimensions selected express the extraordinary diversity of wine which is at the same time a source of pleasure for consumer but also a source of anxiety because of the risk of error that it generates. Consumers search new information to reduce this risk.

3.3. Segmentation description

The selected factors are then introduced as variables. To obtain a better specification of the segmentation we add a socio-demographic and psychographic criteria to the initial segmentation basis. In a first analysis, we looked for the existence of significant relations between factors and qualitative variables (ordinal or nominal). To carry out this analysis, factors are introduced as dependent variables into an analysis of variance. Table 6

synthesizes the totality of the variables which generate a significant (at the 10 % level) average difference for at least one of the factors. Elements in italics are not statistically significant but make it possible to specify or moderate the significant relations.

In a second analysis we studied the relation between factors and quantitative variables. We thus carried out linear regressions of these variables on the various factors. Table 7 presents the totality of the significant coefficients of regression.

Table 6. Elements of segmentation				
Factor 1	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*
To think of...	**Promotion, Publicity…**	**Variety, full-bodied, fashion**	**Preference for quality…**	**Not interested in wine**
Men	Women	*Men*	Family *Women*	*Family*
-	-	Influenced by entourage	-	*Influence by entourage*
-	*Don't by wine themselves*	-	*Don't by wine themselves*	*Don't by wine themselves*
-	-	Designation of origin system is known	-	-
-	-	-	Always wine in house	-
Specialized stores	Department stores	Specialized stores	Don't by in department store	-
At the vineyard	Village fairs	-	-	-
-	-	Bar	Sometimes in Bar	-
-	-	*Night club*	-	-
-	Formal diner at home	Informal diner at home	-	-
Normal lunch at home	Formal lunch at home	-	-	Don't drink for normal lunch at home
-	Normal diner at home	Normal diner at home	-	-
They like simple diners and restaurants	-	-	-	-
French wine preference	Italian wine preference	French wine preference	-	-
First motivation: taste, tasting, meal	*First motivation: tasting, meal*	*First motivation: fashion, meal, relaxation*	*First motivation: relaxation, other*	*First motivation: other, taste*
First alcohol: strong brandies, sweet wines	*First alcohol: hard liquors, sweet wines, champagne*	*First alcohol: hard liquors, beer, aperitifs*	*First alcohol: aperitifs, sweet wines*	*First alcohol: sweet wines*

N.B.: the elements in italic are not statistically significant, but they make it possible to specify the significant relations.

Results of linear regressions (Table 7) are rather easy to interpret:
- Segment 1: consumers devote most of their budget to European wines what is in conformity with their expectation "To think of a foreign country",
- Segment 3: consumers aspire to be connoisseurs; they buy wine for their personal consumption. They are sensitive to the soil, so they buy DO (Denomination of Origin) wines. White wine consumption could be explained by their wine consumption in bars and discotheques,
- Segment 4 is made up of rather high income households for which the wine is a sign of social status; they buy relatively expensive wine to make gifts.

Table 7. Regression coefficients				
Segment 1	**Segment 2**	**Segment 3**	**Segment 4**	**Segment 5**
-	-	Smaller proportion of gift	Higher price and higher proportion for gift	Greater proportion of gift
Smaller proportion in Romanian wines	-	Greater proportion of white	-	-
-	-	Greater proportion of DO	Greater proportion of DO	-

N.B.: all proportions are given as function of total wine budget.

3.4. Segmentation analysis

Two concepts traditionally used to carry out segmentation make it possible to specify the nature of the various segments obtained: implication and values. We use them hereafter to enrich comprehension of our segments.

Wine belongs to the implying products (d'Hauteville, 1994). Implication measures the relation of one individual with regard to a product, it reflects at the same time the importance of the product in consumption, the importance which he attaches to the product itself and pleasure of purchase and consumption. D'Hauteville (2004) distinguishes two different forms of implication:
- implication of consumption that we have just described,
- implication of purchase is related to the context and the risk of making a choice.

The implied consumers search new information (they are more sensitive to information complexity), use diversified channels, make their purchases in wide ranges of price, like to speak about wines they buy and are often more innovating in their choice (Aurier, 1993 ; Goldsmith and *al.*, 1998 ; Locshin and *al.*, 2001). These characteristics are close to those identified in **segment 3**. Conversely little implied consumers use poor information, are sensitive to price, promotions, and signs of distinction. These characteristics define quite well **segments 2 and 4.**

Interpretation of the results enabled us to clarify the existence of a segment of young implied Romanian **(segment 3)**. It is interesting to note that, if in France implication for wine before 35 years is weak, there is a segment of young Romanian which is strongly implied what brings them closer to Australian young people whose implication for wine is particularly high. Implication of young Romanian is related to the perception of wine as in fashion. This segment is also interesting because it is distinguished from the others by the occasions of consumption. While wine consumption in France tends to be concentrated at the time of (formal) meals (Aurier, 2004), young implied Romanian also drink wines outside home and

for entertainments (bar, night-club). Implication of young Romanian appears thus dependent to fashion. For the French case, one of the possible strategies to stop the decline of young people consumption could thus be to widen the occasions of consumption while ceasing associating the wine to traditional and a little solemn occasions of consumption.

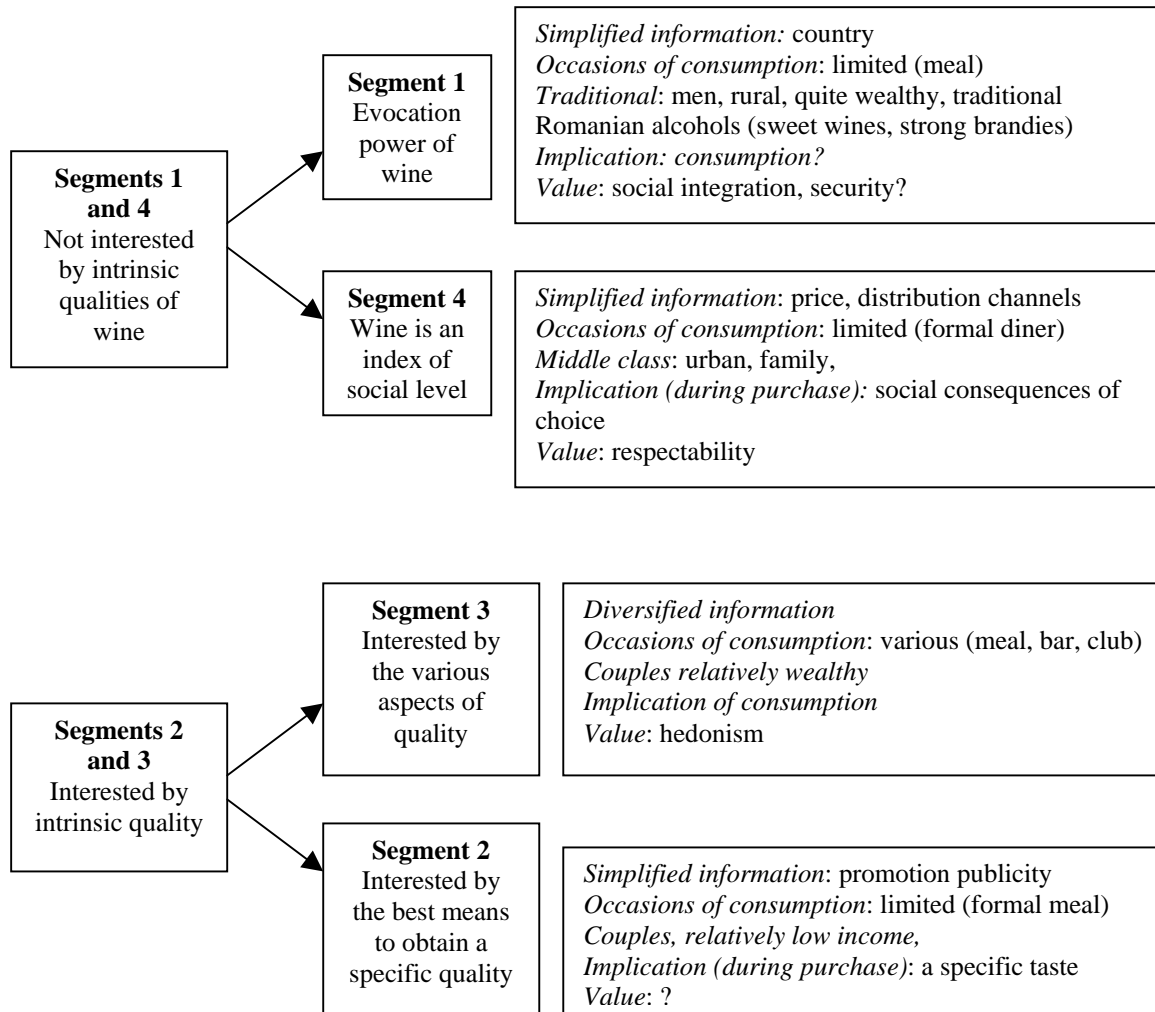Wine purchase is a risky decision. This risk comprises two aspects (d'Hauteville 2004):
- the risk is related to the consequences of an erroneous choice: for example when the wine is bought for a gift, or being consumed during formal meals. **Segment 4** seems to be very sensitive to this risk. Consumer in this segment primarily buys wine in the two occasions quoted in example. He/she wants absolutely to avoid shame to have made a bad choice, for that, he/she adopts several strategies: purchase of expensive bottles, original bottles (the quality of the container will, if necessary, compensate for the failure of the contents), in specialized stores.
- risk is also the possibility of being mistaken on quality of the bought wine. Consumers of the **segment 2**, whose tastes are concentrated on fruity wine, are sensitive to this risk. Quality must be in conformity with the taste they are waiting for.

The various forms of implication clarify in a particularly relevant way the exploratory segmentation we obtained.

Studies show that correlation between wine consumption and lifestyle is low and that adhesion with a system of values hardly makes it possible to predict specific behaviors of purchase (Aurier & d'Hauteville, 1996). Nevertheless, values contribute to clarify the segmentation of consumers and to characterize styles of consumption. We tried to associate the grid of value used in the INRA-Onivins 1995 study (Aurier & d'Hauteville, 1996) to our segmentation. Values are:
- Value of social integration: "in life, it is especially significant to have good relations with the others",
- Value of hedonism: "to benefit from existence and personal achievement",
- Security value: "to feel safe",
- Value of dignity and respectability: "to have self-respect".

The diagram below tries to recall the subjacent logic of the segmentation obtained.

Segments 1 and 4
Not interested by intrinsic qualities of wine

Segment 1
Evocation power of wine

Simplified information: country
Occasions of consumption: limited (meal)
Traditional: men, rural, quite wealthy, traditional Romanian alcohols (sweet wines, strong brandies)
Implication: consumption?
Value: social integration, security?

Segment 4
Wine is an index of social level

Simplified information: price, distribution channels
Occasions of consumption: limited (formal diner)
Middle class: urban, family,
Implication (during purchase): social consequences of choice
Value: respectability

Segments 2 and 3
Interested by intrinsic quality

Segment 3
Interested by the various aspects of quality

Diversified information
Occasions of consumption: various (meal, bar, club)
Couples relatively wealthy
Implication of consumption
Value: hedonism

Segment 2
Interested by the best means to obtain a specific quality

Simplified information: promotion publicity
Occasions of consumption: limited (formal meal)
Couples, relatively low income,
Implication (during purchase): a specific taste
Value: ?

CONCLUSION

This exploratory study carried out during the year 2005 made it possible to look further into the problem of wine market segmentation in Romania. If our findings require to be confronted with a larger and more diversified sample, two axes of the study seem nevertheless interesting:

- insufficiency of the one-dimensional segmentations inspired by pan-national approaches which do not make it possible to take into account the whole dimensions of wine consumption in this country;

- proposal for a multidimensional segmentation resting on product attributes based on its specific and extrinsic qualities and on data processing (How wine complexity is taken into account, how simplifications are made).

The segmentation basis obtained is rather similar to that presented in Spawton (1991). Even if the segments are different in detail, we can nevertheless find common points. We can in particular observe the same opposition between consumers interested by specific wine quality and those rather concerned with its social aspects (opposition between the group of segments 2 and 3 and the group of segments 1 and 4). Moreover, the same difference is

observable between consumers who have a broad pallet of taste and those with narrow pallet (opposition between segment 2 and segment 3).

It also arises that the implication concept clarifies well the segmentation obtained of the Romanian market. Lockshin and *al.* (2001), in a study on the way in which consumers buy their wine, highlighted that the levels of implication can be used as basis for a pan-national segmentation. It would then be advisable to look further into this concept to understand if it could be used as a basis for a pan-national segmentation including the whole aspects characterizing consumer behaviours. Finally, it would be interesting to test the capacity of segments to inspire concrete marketing strategies (actionability) by studying the general policies of the producers of wine confronted with an environment in full transformation.

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