ORIGIN, GRAPE VARIETY OR PACKAGING? ANALYZING THE BUYING DECISION FOR WINE WITH A CONJOINT EXPERIMENT

Gergely Szolnoki, Roland Herrmann and Dieter Hoffmann

November 2010

www.wine-economics.org

Origin, Grape Variety or Packaging? Analyzing the Buying Decision for Wine with a Conjoint Experiment

Gergely Szolnoki[a], Roland Herrmann[b] and Dieter Hoffmann[a]

Abstract

The purpose of this paper is to analyse the influence of the identification[1] and the packaging of bottled wines on the consumer decision. A case study is conducted in order to quantify the weight of determinants of wine purchase such as origin and variety, i.e. the identification factor, bottle shape, bottle colours and label style (elements of packaging). The analysis of the relative importance of these factors is based on conjoint measurement. A real buying decision without tasting the wine is simulated and conjoint analysis is applied to measure the utility of wine characteristics. The results show that wine packaging has a significant impact on the buying decision. Furthermore, it can be stated that the influence of the exterior product design differs strongly across customer segments.

1   Introduction

The increasing number of new wine products has forced producers to adjust to increasing competition on the wine market. Nowadays, they have to differentiate their products and brands not only by means of taste and terms but also by means of design.

The outcome of this development is that customers face a large amount of new information. This may lead to an information overload which makes customers' decision-making more complicated. To avoid this situation, customers seem to look for quality signals which may guide them in making the right buying decision. Furthermore, the importance of packaging has grown due to the increase of specials in supermarkets and the rising share of self-service stores.

The amount of selling points in which professional service is not available adds up to more than 75 % of the sales volume of wine. In such facilities it is rarely possible to taste the wine or to get any specific information on the product. Therefore, the packaging seems to substitute this lack of communication between seller and buyer and becomes a medium of communication by itself.

---

[a] Dr. Gergely Szoloniki and Prof. Dr. Dieter Hoffmann, Geisenheim Research Center, Section of Economics and Market Research. Von-Lade-Strasse 1, D-65366 Geisenheim, Germany. Email: szolnoki@fa-gm.de; d.hoffmann@fa-gm.de

[b] Prof. Dr. Roland Herrmann, Institute for Agricultural Policy and Market Research, Professorship for Agricultural and Food Market Analysis. Senckenbergstr. 3, D-35392 Giessen, Germany. Email: Roland.Herrmann@agrar.uni-giessen.de

[1] Identification contains all the terms on the wine label which can be regarded by the consumers as a quality indicator. This includes all written information on the label such as origin, variety, brand name, vintage, quality level, colour and taste of wine, name of the winery, terroir, etc.

In this respect, the packaging of wine has a very complex function within the process of making a buying decision. From a consumer's point of view, packaging functions are to store the product, to secure it during transportation and to provide necessary information. Dozens of launches and relaunches of new products have proven that packaging has gained in importance.

Consumers are not buying just a "product" but also a positive image, life-style, picture, colour and model with the product itself. They are expecting more of a product than its original task of "satisfying thirst" – their emotional needs have to be met, too.

The central objective of this research is to identify the factors driving custromers' buying decisions for a situation where consumers do not have the chance to taste the wine. The role of wine packaging and design shall be clarified and is analysed jointly with other determinants of the purchasing decision. Only this approach allows to quantify the impact of all major factors affecting the buying decision and to quantify their relative significance.

2   Literature review

Conjoint analysis is a wide and often applied way in the food industry for analysing influence factors in the consumer decision. Instead of listing and getting into details of every conjoint study we focused on the papers using wine as research product.

There are some conjoint analyses which have already dealt with wine as a product. These studies were collected and classified on the basis of their attributes and attribution levels, in order to look for combinations of attributes which have not yet been analysed. The list of the conjoint analyses is not exhaustive. The graphical summary of the literature overview is found in figure 1.

Figure 1: Literature overview
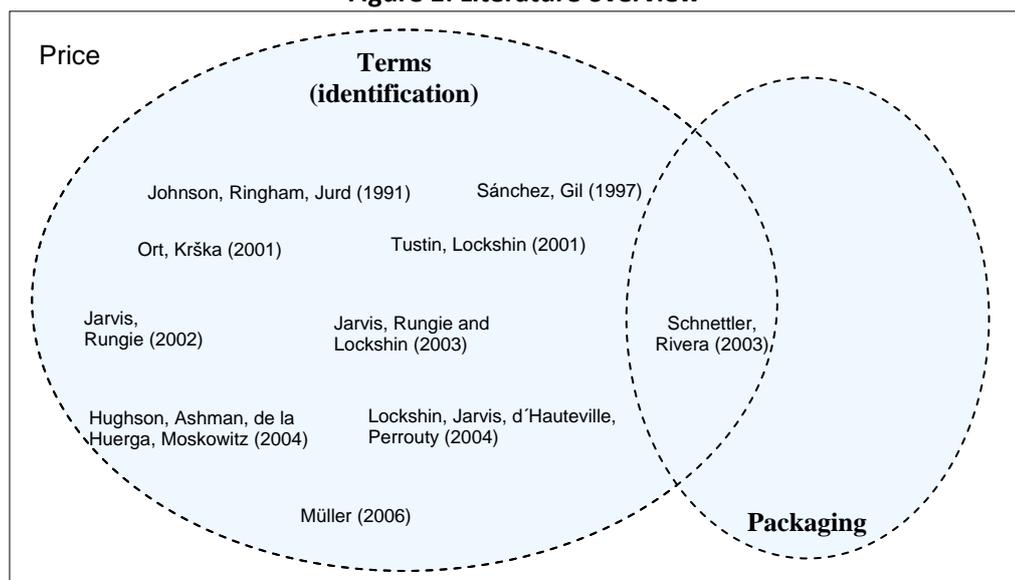
Source: Own presentation.

The category terms (identification) contains studies with attributes which describe the taste of the wine or belong to its image (e.g. vintage, grape variety, region, brand name etc.). As Figure 1 shows most of the conjoint studies selected in the literature overview dealt with different terms – identification – and less with visual effects. One of the first conjoint studies with wine of Johnson, Ringham and Jurd (1991) analysed the importance of price, grape variety, region of origin and vintage on the Australian market. Tustin and Lockshin (2001) complemented their research with brand name, while Schnettler and Rivera (2003) were the only ones who investigated within a conjoint analysis also packaging -although they used the type of packaging like bottle or Bag-in-Box and not the visual influence of different label design.

All of the above mentioned studies worked with verbal information (terms), none of them used visual help for simulating a realistic buying situation. The purpose of the present study required a new way to involve consumers in such a research. Analysing the influence of packaging cannot be considered without showing design elements and measuring its influence as if would be a real buying situation. For this reason we decided to use computer generated images just like Deliza, Macfie and Hedderley (2003), who presented pictures of passion-fruit juice combining packaging attributes like background colour, picture, and shape and another verbal variables like information, brand and language.

2   Methodology

2.1. Theory on the process of the buying decision

We assume that the wine's origin, its variety as well as its packaging are used as purchase cues. This study focuses on these three factors and quantifies the degree of their respective impacts on the buying decision.

It is generally accepted that the expected value of a bottle of wine is influenced by its basic and its additional value (VERSHOFEN 1959, p. 89). In the case of wine the basic value is the perceived taste, whereas factors like the image of the origin, wine variety and a brand name as well as packaging contribute to the additional value of the wine. If consumers cannot taste the wine before deciding, only an expected basic value (expectation how the wine tastes) can be identified. We posit that within the purchase set the additional value and the degree of experience affect the expected basic value of the wine (Figure 2).

Research by SZOLNOKI (2007, p. 143) shows the difference between preliminary decisions and decisions at the point of sale (POS). If the consumer does not make an impulse purchase he decides about the occasion and an approximate price class first. The first two decisions influence the store choice (discounter, supermarket, specialised wine store or at the winery) and the colour and the taste of the wine, too. Thus, the choice set of potential wines is limited.

Figure 2: Buying situation without tasting the wine
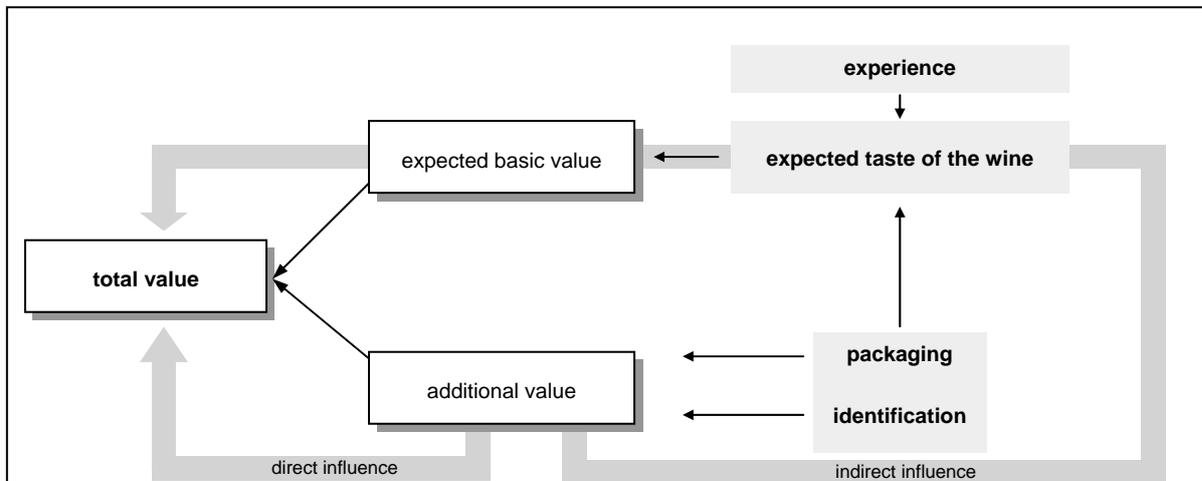
Source: Own presentation.

At the point of sale there are some latent and evident pieces of information for an external search. Evident information is observable for the consumer, but latent information and its influence stay hidden during the decision-making process (ELLINGER 1966, pp. 263-265). Written information like origin, variety, brand name or vintage is regarded as evident information, whereas design (design is the effect of components of the packaging) belongs to the latent factors (Figure 3).

Figure 3: Determinants of the Buying Decision
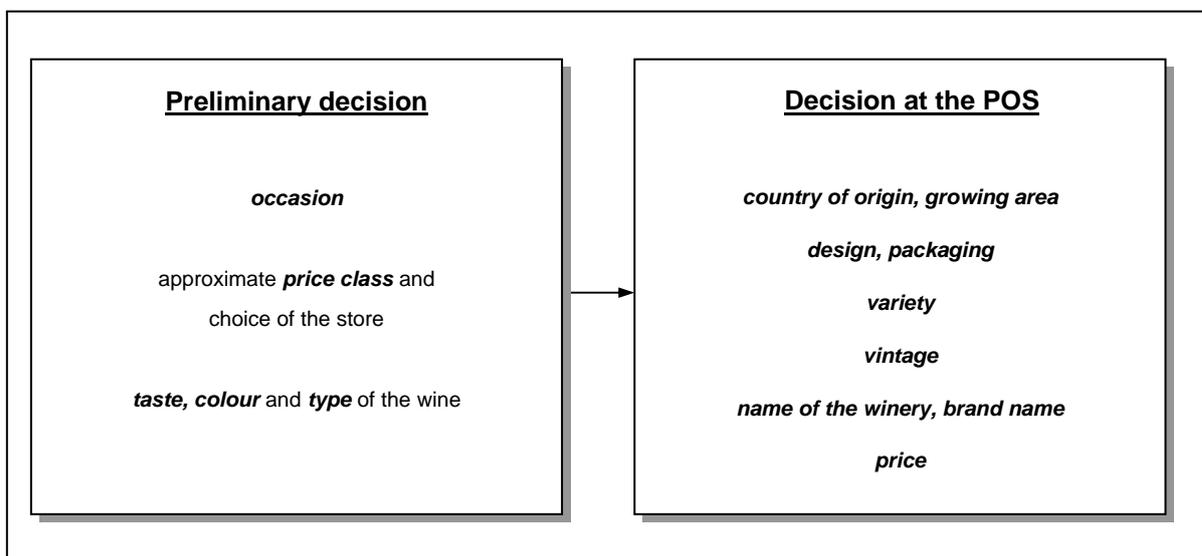
Source: Own presentation.

Consumers are typically unaware of the physiological and psychological impacts of visualised communication. Therefore, it is difficult to find the appropriate method to analyse the influence of packaging on their buying decision.

Usually questionnaires are based on the method of so-called "direct questioning", as this approach is fast, uncomplicated and includes direct questions. These surveys require customers who are aware of the respective topic and respond knowingly. However, this method has two disadvantages: (i) deciphering of the process in the subconscious is difficult, and (ii) socially expected answers may occur.

Customers are mostly unconscious of the moment they make a buying decision: Consequently, this decision takes place in their subconscious. It is too idealistic to ask the consumers how thoughts develop in their subconscious, as they are unaware of it themselves. In such cases participants tend to give socially expected and accepted answers. By means of these responses the customers try to avoid the impression that they pay too much attention on the packaging of the product. Respondents would tend to assess the influence of the packaging on his decisions quite low.

To reach a correct result through a questionnaire, this research uses a quasi-experimental situation in which a choice situation is constructed for a buying situation in which the wine cannot be tasted before purchase. Then, the empirical results are investigated by conjoint analysis and the utility of the chosen wine is decomposed into partial utilities of the wine characteristics.

2.2 Research design

Conjoint analysis is a technique for measuring the structure of consumer preferences by use of a decomposition model. Respondents assess total profile descriptions and not directly the part-worths of attribute levels. Thus, the advantage of conjoint measurement is the simulation of a real choice situation where products with a combination of attributes are available (GREEN and SRINIVASAN, 1978).

According to the results illustrated in Figure 3, the factors of the second group are included as potentially significant attributes for the conjoint analysis. Factors like growing area, design, variety and price of the wines are selected for the analysis.

The first attribute, which was signed as identification criterion, comprehends the growing area and the variety. In contrast to it, the packaging was partitioned into three components: bottle colour, bottle shape and label style. The price remained on the left-hand side of the equation as one dependent variable.

During the selection of the attribute levels, we focussed on the selection of realistic alternatives in the test. In this analysis, wine from the region Palatinate, a wine from the region Moselle as well as an Italian wine were chosen. For the German wines, we selected the variety Riesling, and a Pinot Grigio represented the Italian wine. As to bottle forms, the Schlegel and the Bordeaux type were selected. Labels have too many individual characteristics (cf. SEIDEMANN 2000), and not all of them could be included in our conjoint model. Therefore, we defined a complex attribute, which should encompass all other sub-attributes of the "label style". The labels which proved to be significant in a pretest were

chosen for this conjoint analysis as basic alternatives. The attribute "bottle colour" was determined by the three colours occurring most often: white, green and brown.

54 alternatives resulted from the selected number of attribute levels and constituted the full factorial design. They were reduced by means of SPSS 13.0 Orthoplan to nine profiles (see Table 1). As the aim of the analysis is to measure the influence of different elements of packaging, testing only a description of the profiles is not sufficient. Therefore, the nine profiles were presented with photographs.

The following rules applied to the photomontage of the profiles:

- All verbal and non-verbal pieces of information, which are not correlated with the selected attribute levels and may influence the evaluation, were removed. The brand name, producer, special quality terms, logos, etc. are cases in point.
- The photographs of the bottles had the same size and quality.
- All other attributes, that do not change within the conjoint analysis, were represented on the label for each profile in a standardised form. This refers to the vintage, the quality and alcohol level, taste preferences and fill quantity.

The photographs were created with the software Adobe Photoshop 7.0. The label included identification (origin and variety), vintage (2005), quality level (quality wine or DOC), taste (dry), fill quantity (0.75 l) and alcohol level (12 % vol.) .

Table 1:   Profile of wines for the conjoint analysis

	Identification	Bottle form	Bottle colour	Label style
A	Mosel Riesling	Bordeaux	brown	extravagant
B	Italian Pinot Grigio	Bordeaux	brown	international
C	Pfalz Riesling	Bordeaux	white	extravagant
D	Mosel Riesling	Bordeaux	green	traditional
E	Pfalz Riesling	Bordeaux	green	international
F	Pfalz Riesling	Schlegel	brown	traditional
G	Italian Pinot Grigio	Bordeaux	white	traditional
H	Mosel Riesling	Schlegel	white	international
I	Italian Pinot Grigio	Schlegel	green	extravagant

Source: Own presentation.

A purchase without tasting the wine was simulated for the conjoint analysis. By presetting a buying motive (Friday evening wine with friends), the colour (white wine) and the taste (dry), the variables for the preliminary decision (cf. Figure 3) were defined. Thus, we reduced the influence of these variables to zero.

The respondents received cards with photographs of the profiles to be ranked according to the criterion which wine suits the defined occasion best, second-best, etc. Additionally, the participants should express their maximum willingness to pay for each of the wines. Consequently, a non-metric scale was applied for the ranking of the wines and a metric scale for the willingness to pay.

3 Results

As surveys of conjoint analysis show, the methodology is often applied to actual or constructed purchase situations. There are a number of statistical indicators available to evaluate the performance of the conjoint approach. Kendall's Tau and Pearson's correlation coefficient are often used. Kendall's Tau is a conformity quantification grade of two different rank lines while the correlation coefficient, Pearson's R, is a measure of the strength of the association between two nominally scaled variables, which is based on the Chi-square statistic (HERRMANN and HOMBURG 2000, pp. 496-498).

A Kendall's Tau above 0.60 and a Pearson's R above 0.80 indicate an internal validity from medium to very good (TEICHERT 2001, pp. 106). The following analysis is characterised by a good internal validity with a Kendall's Tau of 0.833 and a Pearson's R of 0.959.

3.1 Analysis of the part-worths and the relative importance of the attributes

The dimensionless part-worths of the attribute levels are calculated by means of conjoint analysis (see Table 2). Their sum over one particular attribute equals to zero.

For the estimation of the part-worths the discrete preference model was used.

Table 2: **The part-worths of the attribute levels and the relative importance of the attributes**
(n=501)

Relative importance of attributes	Identification 29.9 %	Bottle form 12.0 %	Bottle colour 18.6 %	Label style 39.5 %
Part-worth of attribute levels	Italian Pinot Grigio +0.416	Bordeaux +0.252	brown -0.228	international +0.672
	Palatinate Riesling -0.414	Schlegel -0.252	green +0.150	extravagant -0.358
	Moselle Riesling -0.002		white +0.078	traditional -0.314

Source: Own computations.

Table 2 shows that the respondents clearly prefer the Pinot Grigio from Italy to both German wines. With a value of +0.416 the Italian Pinot Grigio received the second-highest preference value within the conjoint analysis. The rating of Moselle Riesling is slightly negative but close to zero (-0.002). Riesling from Palatinate shows the lowest part-worth as to the identification attribute (-0.414).

Concerning the preference towards the bottle form, this analysis confirms the results of other studies (Hoffmann 1998, p. 24): The Bordeaux bottle is more popular than the traditional Schlegel type. Regarding the three bottle colours, brown performed rather poorly with a value of -0.228. The green bottle achieved the highest value (+0.150). The white bottles were also evaluated positively (0.078), however.

With regard to label styles, the international version (+0.672) obtained the best value. The traditional and extravagant designs, however, were refused with part-worths of -0.314 and -0.358 respectively.

Table 2 contains the relative significance of the attributes, too. Achieving a part value of 39.5 %, label style is the most important factor among the selected and tested characteristics. The second most important factor is the identification of wine with 29.9 % followed by bottle colour (18.6 %) and bottle form (12.0 %).

These results, i.e. the mean values of the part-worths and the relative importance of the attributes reveal first findings and are starting points for further research. In order to investigate the heterogeneity of the part-worths and the relative importance in more detail, a segment-specific analysis is utilized additionally. Thus, differences in participants' buying behaviour will be uncovered and the segments can be described by socio-demographic and behavioural patterns, as well as general views and knowledge of the respondents.

3.2 Segmentation on the basis of the relative importance of the attributes

In addition to the relative importance of the attributes, five socio-demographic and personal characteristics (age, wine consumption, purchase intensity in special wine stores, taste preference for white wine and wine knowledge) were included in the model of segmentation. With these so-called active variables, a hierarchical cluster analysis was carried out. The Ward method is utilized and z-values are taken as statistical indicators.

The integrated cluster analysis makes it possible to distinguish between three consumer segments. Table 3 summarizes the percentage deviations from the mean attribute level for each type. The designation of the segments results from the socio-demographic and personal characteristics.

Figure 4 shows the segments depending on the respective influence of the identification, the bottle form, colour and label style with regard to the purchase decision.

Table 3: **The deviations from mean values of selected socio-demographic and personal characteristics in percent for each segment of wine consumers**

Variables	Significance	Younger consumers without experience		Older wine connoisseurs		Mainstream	
		N=173		N=165		N=163	
Age	0.000	-37 %	– – –	38 %	+++	1 %	
Education	0.000	-14 %	–	12 %	+	3 %	
Salary	0.000	-17 %	–	18 %	+	1 %	
Consumption in litres	0.000	-43 %	– – – –	29 %	++	17 %	+

Taste preference – red wine	0.000	-22 %	– –	20 %	++	2 %
Taste preference – white wine	0.000	-19 %	–	14 %	+	6 %
Purchase intensity in special wine stores	0.000	-15 %	–	12 %	+	6 %
Purchase intensity in discounters	0.000	15 %	+	-16 %	– –	1 %
Purchase intensity in supermarkets	0.004	6 %		-10 %	–	3 %
Purchase intensity directly at wineries	0.000	-25 %	– –	28 %	++	-2 %
Primary purchase in %	0.087	11 %	+	-8 %		6 %
German wine in %	0.002	-10 %	–	16 %	+	-6 %
Red wine in %	0.060	-11 %	–	10 %	+	-6 %
Knowledge about wine	0.000	-27 %	– –	27 %	++	2 %

Coding: 10-19 % + (-); 20-29 % ++ (– –); 30-39 % +++ (– – –); >40 % ++++ (– – –).

Source: Own computations.

Figure 4: Relative importance of attributes in each segment of wine consumers
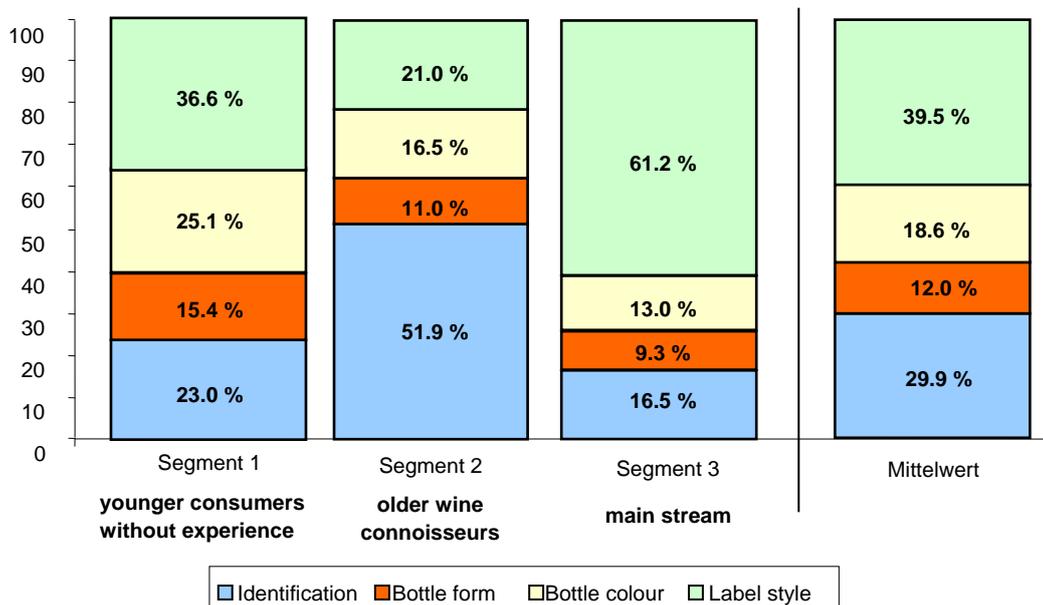
Source: Own computations.

Buyers in Segment 1 can be characterised as "younger consumers without experience", being predominantly younger than 26 years. Their wine consumption of approximately 12 litres/year is very moderate compared to the other two customer types. The typical representative of this consumer group drinks sweet, smooth wines and rather is a newcomer within the wine world. Having earnings below average, he buys wine in discounters and supermarkets. For this segment, the share of German wine in total consumption amounts to

38 % only, which indicates that the younger German generation is attracted more by foreign wines. Young consumers like to experiment with unknown wines. Accordingly, the part of the primary purchase is higher than for the other segments. Moreover, the first segment prefers white to red wine.

Young inexperienced consumers orientate themselves at the design when being in a purchase situation. Although label style and denotation show average values, the influence of bottle form and bottle colour on the buying decision is highest in this segment with 40 % (see Fig. 3). Most likely, these consumers, due to their lack of experience, do not pay attention to product information written on the label, but rather focus on the packaging.

"Older wine connoisseurs", above 45 on average, have a better education and income. Their wine consumption is high at approximately 40 litres/year, and dry wines are favoured in this segment. These customers preferably buy their wines in specialised wine stores and at winemakers, while discounters are neglected as a store type for wine purchases.

Older consumers have a rather good knowledge of and a great interest in wine. Experimenting reluctantly, these customers often stick to wines they already know. With regard to origin, they prefer German wines to foreign ones and drink more red than white wine. This segment represents the antipole to the "younger consumers without experience".

According to "older wine connoisseurs", identification is the decisive attribute for the purchase decision. It accounts for 52 % during the wine-selection process, which is the highest value observed across all segments. Being more experienced with varieties and countries of origin, these customers are rarely influenced by the packaging. The unconscious impact of the design is suppressed by evident information.

The third segment can be characterised as "mainstream" wine consumers. This denotation does not refer to the decision process but the socio-demographic and personal characteristics of this group. Except for wine consumption, all characteristics of this customer type are similar to the mean value. Consumers from 30 to 40 years, drinking approximately 30 litres of wine per annum and preferring semi-dry wines, belong to this segment. They know more about wine than members of the first group and their purchase intensity in specialised wine stores is higher, too. In this regard, they range between the first and the second consumer segment.

Apparently, these consumers search for evident information and, therefore, they primarily concentrate on the label. During the judgement process, however, the visual information becomes more important and finally determines 60 % of their buying decision. The unconscious influence of the label is highest in this segment. The other design elements are evaluated below average.

3.3 Analysis of the segments

The three segments of wine consumers are described in more detail now on the basis of their evaluation of the part-worths and the design variations.

Figure 5 illustrates how the three segments of wine consumers rank the different wines and how they differ in terms of their willingness to pay. Additionally, it is shown in Figure 6 how the three segments of wine consumers deviate in their views on individual wine attributes.

With regard to ranking, the evaluation by the different consumer types is nearly equivalent. Concerning the willingness to pay where no minimum and maximum boundaries were given, this is not the case. Willingness to pay differs strongly across the consumer segments. Apparently, "younger consumers without experience" have little knowledge about wine prices. They categorised the test wines approximately 3 € higher than the two other segments. The customer type "mainstream" ranges between younger and older consumers, although his evaluation resembles the assessment of the second group. The "older wine connoisseur" made a more realistic estimation and noticed that there should not be strong differences between the prices of the test wines.

Younger consumers without experience: The term Italian Pinot Grigio was evaluated best in this group with 1.72, whereas Palatinate Riesling remains with the preference indicator of -1.50 in the negative range. Since this segment attaches great importance to design elements, the bottle form achieves the highest value here (0.25). The younger generation judges the dark bottle negatively. The valuation of the green bottle colour is not far from the zero barrier, while the white glass received the best rating, namely 0.62. With regard to the different label styles the discrepancies between the appraisals of the three segments are most striking. Young customers are the only ones evaluating the extravagant label design positively. The assessment of the international style is predominantly positive, too, but worse than the one of the artist label. Negative evaluations of the traditional label style and the brown Schlegel bottle indicate that these consumers refuse to an old-fashioned, German design and prefer the modern, fashionable, sometimes playful packaging[2].

The " younger consumers without experience" are ready to pay 3.22 € more for an Italian Pinot Grigio than for a Palatinate Riesling and 1.94 € more than they are willing to pay for a bottle of Moselle Riesling. A Bordeaux bottle was evaluated by 0.50 € higher than the Schlegel bottle. The willingness to pay for a white bottle is, compared to the brown and green colours, 1.22 € and 0.64 € higher respectively. The extravagant label style, in comparison to the international design, exhibits an extra value of 0.69 €, whereas the willingness to pay for the traditional type is by 0.92 € lower. The higher value that is attached to specific attribute levels can be put down to the lacking knowledge and the missing experience with wine prices in this segment.

---

[2] The graphical representation of the consumer acceptance and the ranking of the test wines (Fig. 5) shows that the first segment evaluated the test wine F worst. This profile contains the attributes levels, that achieved the lowest value in this segment (Palatinate Riesling, Schlegel bottle, brown bottle colour, traditional label style). It is presupposed that the absolute refusal of the old-fashioned, traditional design caused simultaneously the refusal of the identification Palatinate Riesling. Since the conjoint analysis was applied with the minimum number of profiles, there is no possibility of estimating this special interaction effect.

Older wine connoisseurs: These consumers derive their estimation of the total quality of wine from the identification. They refuse Italian Pinot Grigio (-0.42) and approve German wines (Palatinate Riesling was evaluated better with 0.28 than Moselle Riesling with a value of 0.12). Within this group, the disparity in the valuations of the Bordeaux and the Schlegel bottle is smallest. The white and the green bottle colour were assessed more positively than the brown one. The older generation likes the traditional label style, but is not limited in its preference only for one style: The international label design was evaluated equally well, reaching a value of 0.36. On the other hand, the extravagant style was clearly refused. These results show that the older generation does not only favour the old, traditional design but also looks positively upon the simple one (international style).

The older experienced customers are ready to pay 0.70 € more for a bottle Riesling from Palatinate and 0.54 € more for a Riesling from the Moselle than for an Italian Pinot Grigio. The extra willingness to pay for a Bordeaux bottle (0.24 €) is the lowest in this segment. As to label styles, the extravagant design scores worst with a value of -1.08 € compared to the international style.

Mainstream: The members of this segment can hardly be influenced by the identification of the wine. Therefore, there are nearly no differences between the assessments of the two Rieslings and the Pinot Grigio. The evaluation of the Bordeaux bottle has – as in the case of the first segment – a value of 0.25. The preference of the bottle colour corresponds to the results of the second consumer group: the green bottle colour received the best marks, while the white one is least popular. Concerning label styles, the differences between the judgements are largest. This customer type rejects both – the extravagant (-1.19) and the traditional design (-0.35).

With regard to the willingness to pay for the attribute levels, the third segment is similar to the second segment with the difference that the values of the older experienced are more consistent in the positive range. The "mainstream" consumers are only ready to pay a little bit more for a bottle of Palatinate Riesling (+0.16 €) and for a Moselle Riesling (+0.23 €). The difference between these two segments becomes apparent when being asked to evaluate various label styles: For them, a wine with an extravagant label is -2.72 € and a traditionally designed one -1.89 € less valuable than one of the international style.

Figure 5: Graphical presentation of the ranking of the test wines and the respective willingness to pay
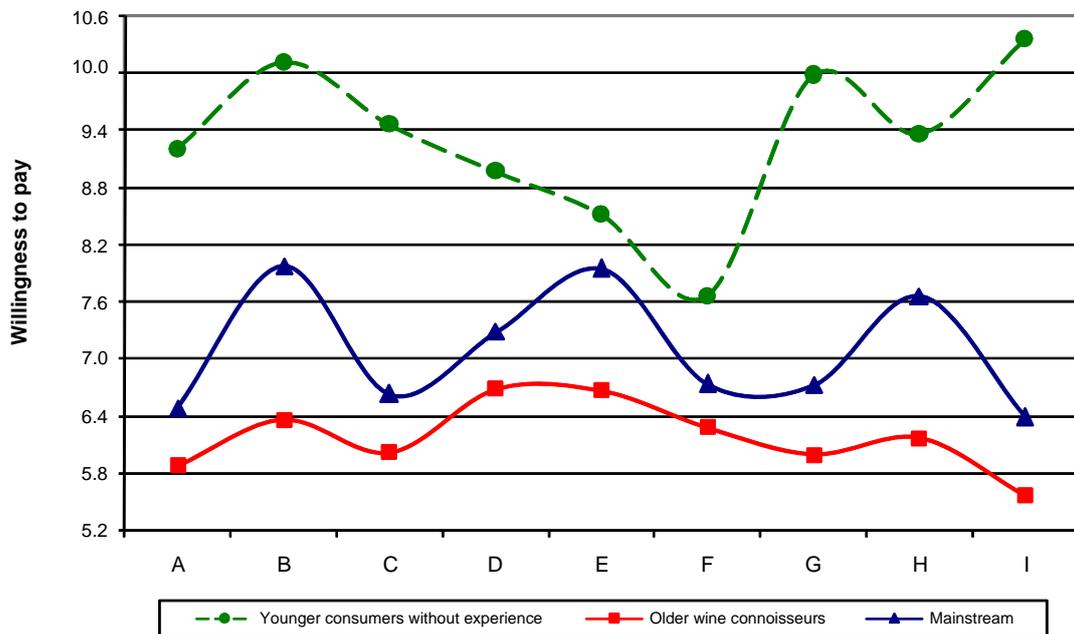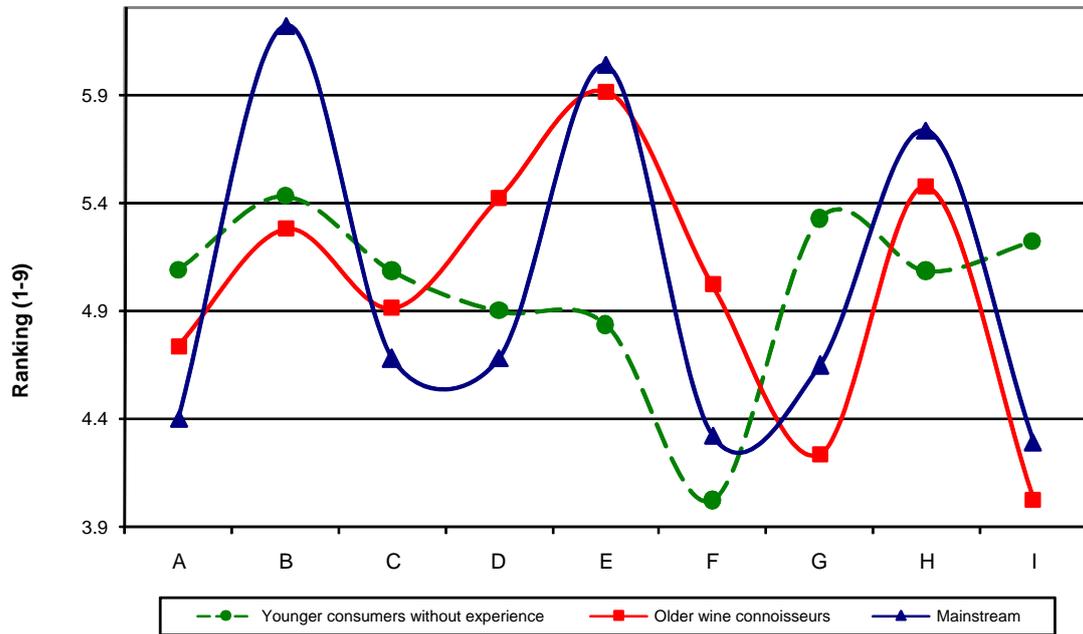
Source: Own presentation.

Figure 6: Preference values of the attribute levels in each segment

14
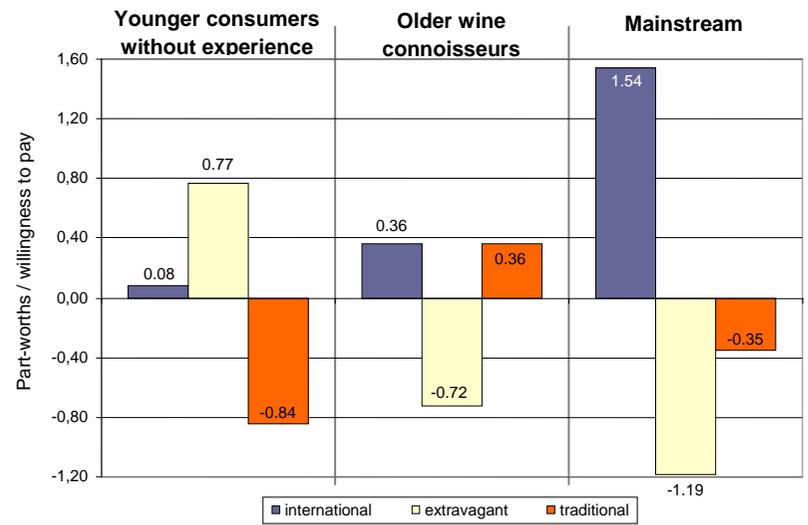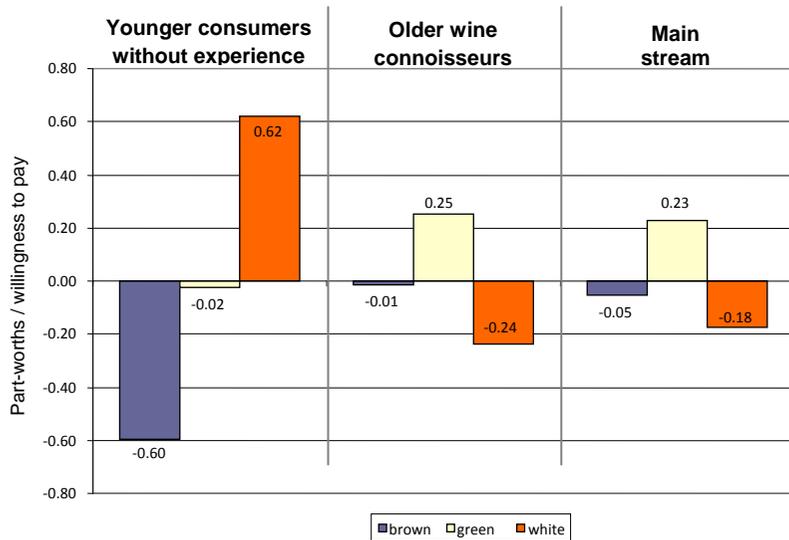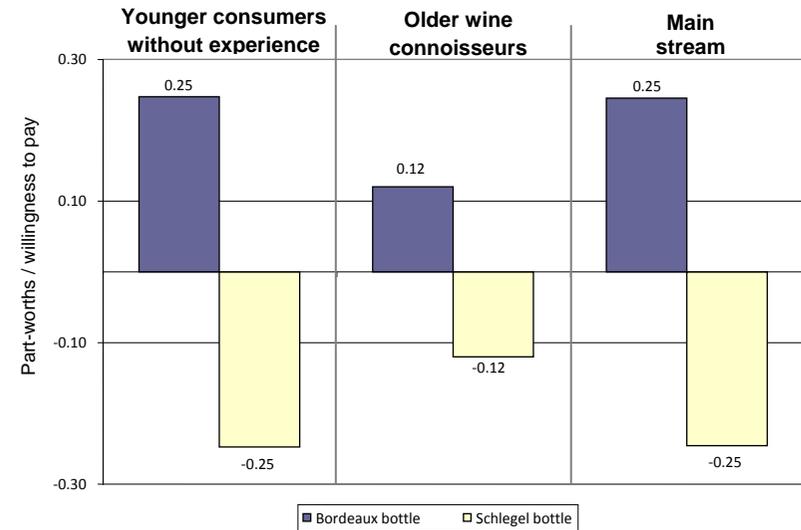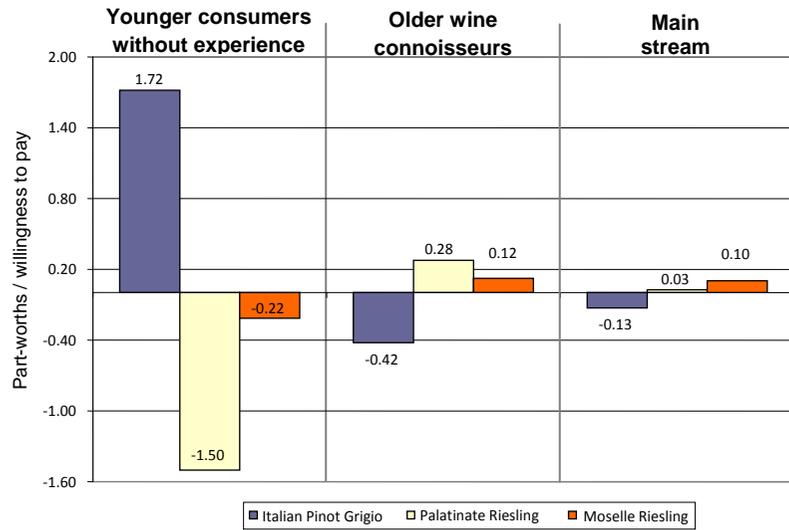
4 Conclusions

By means of conjoint analysis we could indirectly determine the impact of the packaging on the purchase decision of consumers who do not have the chance to taste the wine. The outcome indicates that the outer appearance of a wine bottle strongly influences consumers' buying behaviour. 39.5 % of all customers attach the highest importance to label styles, followed by 29.9 % who mainly orientate themselves at the classification of wine. 18.6 % focus on the bottle colour and, for 12.0 % of the consumers the bottle form is the decisive argument.

The packaging, in this case the bottle form (12.0 %), colour (18.6 %) and label (39.5 %), has the greatest influence on the purchase decision of the respondents. These impacts add up to 70.1 %. The identification feature covers only 29.9 %.

It could be shown, too, that graphical elements are more important at the POS than other characteristics of the packaging due to a stronger activation of and the connection to evident information. The label design ranked first with 39.5 %, followed by the bottle form with 12.0 % and colour with 18.6 %.

Furthermore, it can be observed that the influence of the packaging differs by consumer types. On the basis of segmentation results, it can be concluded that customer groups significantly differ in their evaluation of packaging and identification of wines. These segments were chosen according to the socio-demographic and personal characteristics.

Three groups of consumers can be distinguished by means of the decisive buying criterion:

1. the "younger consumers without experience", for whom packaging like the bottle colour or form is extremely important;
2. the "older wine connoisseurs", who base their decision on the product information on the label;
3. the "mainstream", setting a high value on label styles.

Generally, experienced consumers try to minimise the impact of appearance when selecting a wine. In particular, "older wine connoisseurs" behave like that. These customers have gained experience concerning origin, variety, region, vineyard which determine their decisions in the first place. The main fraction of wine buyers has a limited knowledge about wine culture and business, however. These consumers are designated as laymen; they need indicators and quality signals instead of professional terms in order to judge the quality of wine in a subjective way. The product price and also the elements of packaging are essential choice criteria for these segments.

The black-box approach of the conjoint analysis is limited as it can only show the magnitude of the influence which the packaging and special terms have on the buying decision. It does not allow, however, to draw conclusions on the pieces of information different packaging elements might transmit. Other methods of research are needed here.

The present work contains results of an empirical analysis, which constructed a real purchase situation. In order to make the purchase situation tractable, the range of wine products was reduced guaranteeing certain defined laboratory conditions and, thus, helped to study the consumer behaviour for wine. The reduction of the selection refers to nine different wines within the conjoint analysis. The products tested in the analysis represent the price class of 3-5 €/bottle.

The findings presented in this work confirm a strong impact of wine packaging. The influence will depend on customers' knowledge of wine, their involvement in the product, and the previous experiences of the respondents. In the case of differentiating the product by means of more extreme design variations, the design factor might even gain the major importance in the consumers´ buying decisions.

References

DELIZA, R., H. MACFIE and D. HEDDERLEY (2003): Use of computer-generated images and conjoint analysis to investigate sensory expectations. In: Journal of Sensory Studies, Vol. 18, Nr. 6, p. 465-486.

ELLINGER, T. (1966): Die Informationsfunktion des Produktes. Einzelveröffentlichung aus „Produkttheorie und Produktionsplanung", Festschrift für Karl Hax zum 65. Geburtstag, Köln: Opladen.

GREEN, P.E. and V. SRINIVASAN (1978): Conjoint Analysis in Consumer Research. Issues and Outlook. In: Journal of Consumer Research, Vol. 5 (2), pp.103-123.

HERRMANN, A. and C. HOMBURG (2000): Marktforschung. Wiesbaden: Gabler.

HOFFMANN, D. (1998): Flaschenpräferenzen. Unveröffentlichtes Forschungsergebnis der Forschungsanstalt Geisenheim, Fachgebiet Betriebswirtschaft und Marktforschung, Geisenheim.

HUGHSON, A., H. ASHMAN, V. DE LA HUERGA and H. MOSKOWITZ (2004), Mind-sets of the wine consumer. In: Journal of Sensory Studies, Vol. 19, S. 85-105.

JARVIS, W. and C. RUNGIE (2002), A better understanding of the wine consumer, using an analysis of „real" purchase data. In: Wine Industry Journal, Vol. 17, Nr. 4, S. 87-92.

JARVIS, W., C. RUNGIE and L. LOCKSHIN (2003), Analysing Wine Behavioural Loyalty. In: Proceedings of the 1st Wine Marketing Colloquium 2003, University of South Australia, Adelaide.

JOHNSON, L.W., L. RINGHAM and K. JURD (1991), Behavioral Segmentation in the Australian Wine Market Using Conjoint Analysis. In: International Marketing Review, Vol. 8, Nr. 4, S. 26-31.

LOCKSHIN L., W. JARVIS, F. D´HAUTEVILLE and J-P. PERROUTY (2004), Sensitivity Analysis of Purchase Cues for Wine Using a Discrete Choice Experiment. In: www.sensometric.org/lectures/lockshinsimul4.pdf; University of South Australia.

MÜLLER, S. (2006), Der Herkunftseffekt für Sektgrundweine – eine empirische Untersuchung unter Verwendung kompositioneller und dekompositioneller Methoden. TUDpress, Dresden.

ORTH U.R., and P. KRŠKA (2002), Quality signals in wine marketing: the role of exhibition awards. In: International Food and Agribusiness Management Review, Vol. 4, S. 385-397.

SÁNCHEZ, M. and J.M. GIL (1997), Consumer Preferences for Wine Attributes in different Retail Stores: A Conjoint Approach. In: International Journal of Wine Marketing, Vol. 10, Nr. 1, S. 25-38.

SCHNETTLER, B. and A. RIVERA (2003), Caracteristicas del proceso de decision de compra de vino en la IX region de la Araucania, Chile. In: Cien, Inv.Agr., Vol. 30, Nr. 1, S. 1-14.

SEIDEMANN, J. (2000): Preis- und Marktanalyse des deutschen Flaschenweinmarktes. Geisenheimer Berichte Nr. 43, Geisenheim.

SZOLNOKI, G. (2007): Die Messung des Einflusses der äußeren Produktgestaltung auf die Kaufbereitschaft: dargestellt am Beispiel Weißwein. Geisenheimer Berichte Nr. 61, Geisenheim. Zugl. Diss. Universität Gießen.

TEICHERT, T. (2001): Nutzenschädigung in Conjoint-Analysen. Theoretische Fundierung und empirische Aussagekraft. Wiesbaden: Gabler.

VERSHOFEN, W. (1959): Die Marktentnahme als Kernstück der Wirtschaftsforschung. Berlin u.a.: Heymanns.