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CHANGES IN THE WINE CHAIN -

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MANAGERIAL CHALLENGES  
AND THREATS FOR  
GERMAN WINE CO-OPS

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# Changes in the wine chain – Managerial challenges and threats for German wine co-ops

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## Abstract

Wine production in Germany has a tradition of more than 200 years in each of the 13 German quality wine-growing regions. Even today small grape growers dominate the industry. As a result, most of the viticulturists are members of cooperatives.

Our observation that grape growers still turn to wine co-ops, and hence, the increase in co-op members and vineyards, might indicate that the wine co-ops are successful. Thus, the aim of our paper is two-fold. First, we analyze the structure of this complex sector and the managerial construct strategic member groups. Second, we empirically test whether the formation of strategic groups is a driver of cooperative success.

## Keywords

Cooperatives, German wine market, strategic member group, success factor

# Changes in the wine chain – Managerial challenges and threats for German wine co-ops

## 1 Introduction

The one thing every country has in common is that its economy – and therefore its business landscape – is changing. On both the product and process levels, consumption habits are changing, consumers are altering their lifestyles, innovations are taking place – even political systems break down. Producers must adapt to these changes; they must adjust their products as well as their structures and processes. This task can be considered one of the most important responsibilities of management.

Because the wine market is no exception, analysis of the developments in the sector are of major importance. For example, traditionally wine was bought at the outlets of wineries or cooperatives as well as in specialty retail shops. However, due to shifting buying habits, today more than 80% of the total volume is sold via retail chains. Hence, retail chains now dominate the German wine market and the rules of competition have changed. Because of their global procurement activities retailers are able to speed up competition so that they are able to offer their customers wine of acceptable quality and easy-to-understand labels at relatively low prices. Furthermore, because retailers demand large quantities, only large wine estates and cooperatives are capable of dealing with them. In addition, retailers make abundant use of modern supply chain management and quality management techniques so they demand the same from their suppliers. Due to the increase of importance of retailers in particular, wine cooperatives are key players in the German wine market. Therefore, we focus on wine cooperatives and analyze how they align their business strategies and processes to these dramatic changes.

An analysis of cooperatives must account for their long tradition<sup>1</sup> and their business principles. These can be delineated by the identity of users and owners, the democratic principle of voting, and the lack of entry barriers. Additionally, the legally manifested business goal of nurturing their members can be seen as a further characteristic of cooperatives (LAURINKARI/BRAZDA 1990), i.e. their main function is to support their members in making their own firms more profitable and more sustainable (BIJMAN 2005).

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<sup>1</sup> Even though the beginnings of the co-operative grouping on German soil can be traced back to the German tribes (VON GIERKE 1954), Raiffeisen cooperatives which are addressed in this paper “only” date back to the year 1869 (ANSCHHOFF/HENNINGSEN 1986).

Today, wine cooperatives still play an important role in Germany because of or despite of their long history. Even though the total number of wine cooperatives is decreasing compared with the development of other types of agri-food cooperatives, the structural change is slower and new cooperatives are even being formed in some regions. One reason for this development is the emotional background of wine. For example, the closing of a local wine cooperative is perceived as a loss of identity so that there is little readiness to change. Therefore, the honorary board and supervisory-board absorb some of the dynamics of change (PILZ 2002).

However, counting upon the emotions of the boards' member is not enough to slow the structural change or even reverse it. It is more practical to enhance the performance of wine co-ops. At least three groups of factors are influential: I) development of the above-described business environment, II) the members of the cooperatives, and III) production-oriented specifics of wine co-ops<sup>2</sup>, i.e. there is a direct relationship between the ability of wine co-ops to steer the whole production process and the success of the co-ops.

The aim of this paper is as follows. First we outline and analyze the German wine market with special regard to wine cooperatives. Second, we present managerial mechanisms which can be applied to wine co-ops and which will be empirically tested.

Therefore, our paper is structured as follows. In chapter two we address the wine market in general and particular wine cooperatives. In chapter three we elaborate on managerial challenges and solution mechanisms. Chapter four deals with our empirical research. We conclude by giving some implications and a short summary.

## 2 The wine sector

### 2.1 Overview of the German wine market

Wine production in Germany has a tradition of more than 200 years in each of the 13 German quality wine-growing regions along the rivers Rhine, Neckar, Main, Mosel, Saar, Ruwer, Ahr, Saale, and Unstrut. Traditionally in Germany, viticulture was one of several different plantations on most farms, and the farms as well as the vineyards were very small. Corresponding with the structural change in the agricultural sector, the farms increased their acreage and production as they specialized. The necessity for high intensity of labor hours on the one hand and the simple

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<sup>2</sup> Wine cooperatives are not allowed to buy and sell other goods so the strength of wine co-ops is in the production of wine. Major influence factors of "good wine" are its type and taste that are in turn mainly dominated by the grapes and the work at the vines (TROOST 1988).

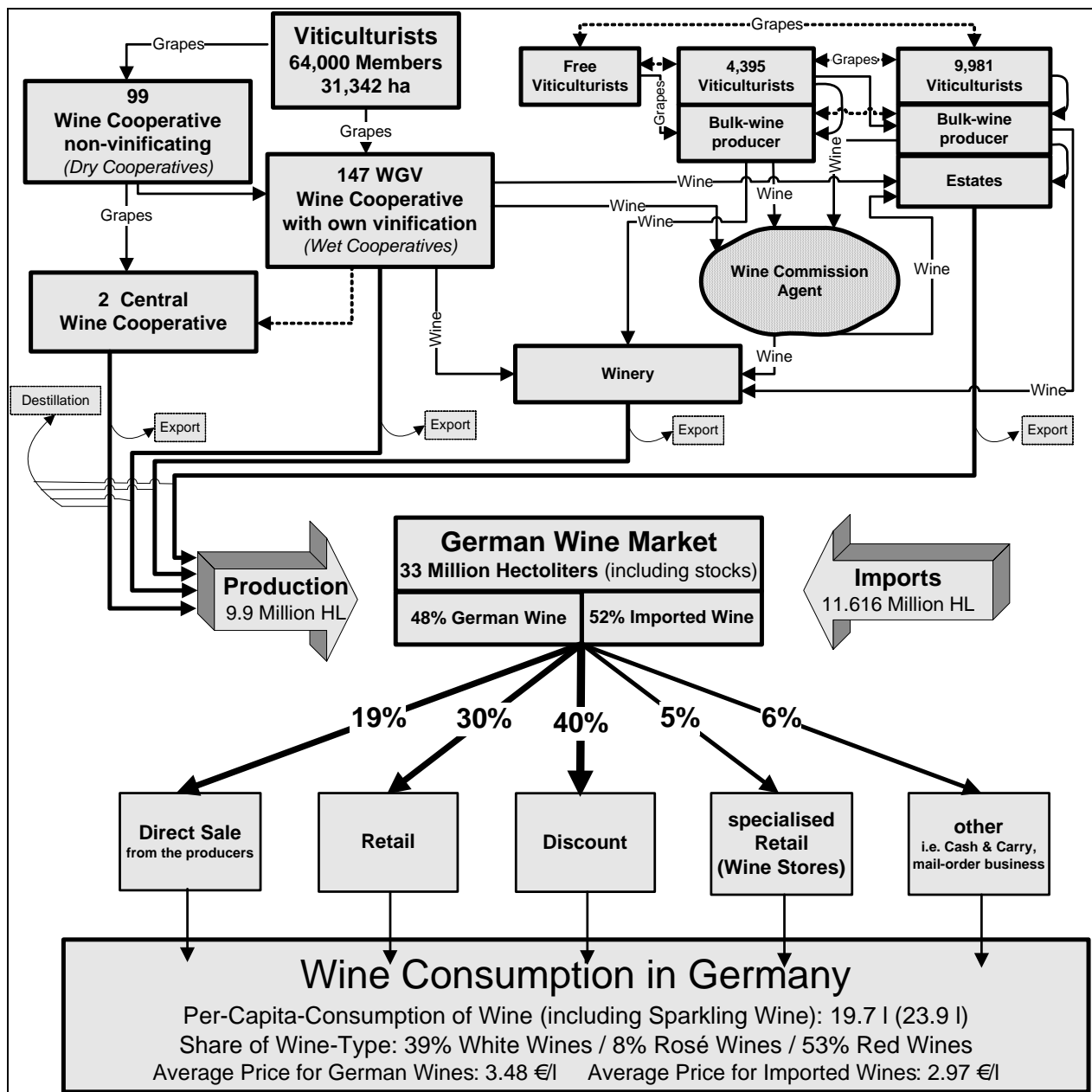
equipment for small growers on the other hand makes viticulture economically attractive for full-time as well as part-time farmers.

The grape industry is still dominated by small wine growers so that there are more than 34,375 wine-businesses. Nearly half of them cultivate less than 1 ha vineyard while only about 2,000 wine growers own more than 10 ha. The majority (more than 58,000) of wine growers are members of cooperatives. In 2005 the German cooperative sector could be divided into 223 primary co-ops and two secondary co-ops. However, only 135 of the primary co-ops possessed their own vinification facilities. The acreage planted with vines by all members increased up to 31,342 ha, so that more than 31% of all German area was under cultivation. In the financial year 2004/2005 wine co-ops produced 3.3 million hectoliters wine, accounting for nearly 35 % of the total wine-production in Germany<sup>3</sup>. In particular, in the regions of Baden, Württemberg, and Franken, where grape production is dominated by part-time viticulturists, membership in cooperatives is widespread. In those regions, co-ops hold a market share of nearly 75%. Interestingly, especially in regions where cooperatives have been traditional underrepresented (Rheinhessen, Pfalz, and Mosel) the wine growers recently turned toward the wine co-operatives, indicating that vine cooperatives are a successful alternative to the bulk-wine market.

Fig. 1: The German Wine Market and the Role of the Cooperatives (HANF/SCHWEICKERT 2003)

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<sup>3</sup> See table of the development of the wine cooperatives in the appendix



The total wine market has a volume of roughly 22 Mio hectoliters, whereas German wine production accounts for roughly 10 million hectoliters of wine and 12 million hectoliters are imported. The three main distribution channels are discount retail chains (40% market share), retailers (30% market share), and direct sales of the producers (19% market share). An increase in the sales of discounters and retailers has been observed for many years. Consequently, prices have been decreasing so that today the average price for German wine is 3.48 Euro, whereas the average price for imported wine is 2.97 Euro. The continuing increase of sales volume in these distribution channels also leads to a shift in the power in the wine chain. Competing fiercely with foreign competitors – in particular wines from the “new world” – German wine producers must

aggressively meet the demands of their customers, both consumers as well as retail customers. Therefore, even cheap wine has to be of acceptable quality. Comparing the average prices, it is evident that the quality requirements on German wine are more demanding than ever. Retail customers are particularly interested in professional supply chain management, in terms of time delivery as well as minimum quantities. Therefore, only a few (very) large private wineries and some central wine cooperatives are able to supply the large retailers on a national basis.

In Germany, not only are wine production and distribution multifaceted, but the traditional wine-label terminology is very complex, as well. Therefore, consumers are often baffled by the jargon on wine labels (JOHNSON 1995), which leads to two different consequences. Whereas some customers perceive the costs of information as positive, the majority of German wine consumers do not favor this complexity. The first group of customers drives to the winery and perceives the buying as an event. These customers account for roughly 24% of the market share (19% direct sales and 5% specialized wine stores). However, no bilateral contact exists because there is usually a significant distance between the wine production location and the location of consumption for the majority of transactions. In this case the wines are bought off the shelves of retailers. Because most of these consumers are occasional wine drinkers, they are looking for uncomplicated signals, such as reputation or brands, to signal quality. Examples such as the wine brands “Balaton” or “Blanchet” indicate the enormous potential of branding, i.e. the majority of consumers choose imported wines with an easily understandable and asymmetric information-reducing label (SCHWEICKERT 2001).

## 2.2 Cooperatives in the wine sector

The description of the German wine market has shown that wine cooperatives have a special role in the market. According to their statutes, wine cooperatives are self-help organizations for wine growers. Their aim is to improve the economic situation of their members by collaboration in vinification and marketing of the grapes or their processed products. Accordingly, the general function of wine cooperatives is to process grapes; produce must; and vinificate (fermentation, fining, clearing, and other oenological practices in the cellar for winemaking), bottle, and market the wine. Thus, the wine co-ops are so indispensable to part-time wine growers that in many communities they are common institutions with a social impact similar to that of local governments (HOFFMANN 2000).

There are significant differences regarding the business concepts of the primary cooperatives with their own vinification. HOFFMANN (2000) divided the “wet“ wine co-ops into

three different groups. First, there are “wet“ wine co-ops which are active on a limited local or regional market called “Local Heroes.” They have created a very high consumer preference for their products in their local markets and they often control the predominant part of the local vineyards. Those in the second category of “wet“ wine co-ops have established a kind of “brand” with the name of their village or community a. Such products vary widely in quality and are often positioned in the middle and upper quality segment in the specialized retail and the restaurant branch. The third category consists of bigger vinificating co-ops which are both positioned in the middle and upper quality segments and are active in the price-dominated retail and bulk-wine competition.

In accordance with the general Raiffeisen cooperative system, a secondary ”central-wine co-operative“ (“central co-op”) has been established in both of the wine-growing regions of Baden and Württemberg, where there are more than 68 non-vinificating wine cooperatives (“dry“ wine co-ops). For them, “central co-ops” function as the vinificating unit so that the “dry“ wine co-ops only have to collect the grapes of their wine growers and deliver the grapes of the whole vintage. Another task of the “central co-op“ is to stabilize the supply. Therefore, many of the wine co-operatives with their own vinification (“wet“ wine co-ops) deliver a contractual share of bulk wine from their vintage.

Because retailers have the major stake in the wine marketing channel, cooperatives must use different distribution channels to market their products. Facing the demands of the retailers, such as continuously supplying them on a national basis, has led to some structural adjustments in the cooperative sector. Because the majority of the “wet” wine co-ops cannot afford to have their own distribution force, “central wine cooperatives” have gained importance. They mainly operate upstream in the wine chain, selling bottled wine from “wet” wine co-ops to retailers nationwide. By being centralized and marketing large quantities, they are able to meet the retailers’ demands of high quantities paired with high demands on the IT infrastructure.

For example, retailers demand to set the standards in the digital exchange, i.e. electronic orders and invoices between two ERP systems. Not complying with these standards leads to a 2%reduction of the paid bill by. Because of these sanctions, the task of the “central co-ops” is to collect the wines from the “wet” co-ops by paper orders and invoices and sell them to the retailers by electronic interfaces. Thus, in general, the “central wine co-ops” mediate between the primary cooperatives and the retailers by marketing wine nationwide and managing the relations with the retailers. Therefore, “wet“ wine cooperatives can focus their marketing efforts on specialized retailers (special wine stores), local retailers, restaurants, and direct selling.



In general, wine cooperatives suffer from by problems resulting from the wine and its production process. They are contractually obligated to exclusively sell products of their members. Thus, in contrast to privately owned wineries, they are not allowed to buy and afterwards sell popular products such as Prosecco or trendy wine varieties. Grapes are long-lasting plants, and as a result, when growers change to a new variety there is a period of about five years until the first vintage can be sold.

Another problem of “wet” wine co operatives is that usually the same price is paid for the same grape, graded to six predicate levels which are determined by a minimum degree °Oechsle. Therefore, each viticulturist that belongs to a “wet“ wine co-op can produce the grapes for every wine that he wishes, regardless whether the grapes match the consumer quality criteria in taste. As a result, members select their grapes adversely so that they sell the better-quality grapes to other mostly private owned enterprises. These co-ops also face the general problems of Raiffeisen cooperatives.

Using a principal-agent approach and the concepts of opportunistic behavior, conflicts of interest, asymmetric information, and stochastic conditions, EILERS/HANF (1999) showed that it is not clear who is the principal and who is the agent, i.e. both the cooperatives and the members can be principals and agents. For this reason, neither leadership mechanisms nor selective terms of delivery can be enforced by the cooperatives, i.e. the members can deliver all the commodities which alternative dealers do not accept. Cooperatives that are forced to accept these commodities face the problem of adverse selection. Furthermore, COOK (1995) pointed out free riding problems, horizon problems, portfolio problems, control problems, and influence cost problems. In addition, KARANTININIS/ZAGO (2001) showed that instead of selling their commodities to open co-ops, farmers would rather sell them to investor-owned firms if they had the choice.

### 2.3 The profile-wine concept

The analysis has shown that wine cooperatives face problems regarding the quality and quantity of wine resulting from the general Raiffeisen principals, as well as the problem that the majority of “wet” wine cooperatives are missing the financial potential to build their own brands. A new German wine labeling law is regarded as primarily benefiting wine co-operatives. It aims to compress a lot of (quality and sensorial) information in the category terms ‘Classic’ and ‘Selection.’ These two terms of the so called ‘profile wine concept’ should provide the needed signaling effect for consumers (SCHWEICKERT 2001).

The traditional German quality wine system focuses on the bottle quality. In contrast, origin and sensorial profile play the most important roles in France's Romance system of quality (SCHWEICKERT 2005). Knowing the problems with the traditional wine labeling law, the Germans wanted to give their wines more profile without changing the actual law. Therefore, the new profile wine concept realized a revaluation of the single product combined with stricter conditions concerning viticulture and vinification, which must be recognized in the taste of the wine in the bottle. The core of the profile wine concept was, on one hand, to enforce the production of classic-styled wines with an easily recognizable origin type. On the other hand, the winemakers should gain an alternative to the common wine labeling in Germany (SCHWEICKERT 2002).

In 2001, the representatives of the Wine-Growers Association of the 13 German wine-growing regions selected a few traditional varieties for the production of Classic and Selection wines. In order to produce Classic wines, winemakers must produce wines that are above average in quality, i.e. these wines should be harmoniously dry in taste and made from one of the traditional grape varieties<sup>4</sup> such as Riesling, Silvaner, Grauburgunder, or Spätburgunder. In addition, they must have higher specific must gravity (+ 1% vol.). The concept is designed to impart a clear profile regarding a wine's quality and taste. Thus, only wines that meet these criteria can be labeled Classic. Selection wines are considered the jewels of the wine cooperatives and wineries. The winemaker chooses the vineyards producing the grapes for the Selection wines under the long-run quality aspects of the previously described vintages. The vineyards must already have special quality security and control measures. Furthermore, they must be registered by the Federal Wine Authorities and the vineyard plots must be marked. Harvesting machines are not allowed. The specific must gravity must exceed 90° Oechsle (sugar content) and the grapes must be hand harvested. The yield is reduced to a maximum of 60 hectoliters per hectare. Finally, the typical characteristics (variety, origin, etc.) are sensorial examined by tightening up official assessment before the Selection wines can be sold from September 1 of the following year.

The profile wine concept is an easily understandable and asymmetric information reducing label that has been created to foster the sales of German wine in the retail distribution channel. Since the retail market demands large quantities, both the particularly large wine cooperatives with their own vinification and the "central" wine co-ops are using this marketing tool. However, because the requirements of the profile wine concept are very tight these

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<sup>4</sup> As table 2 in the appendix indicates, these traditional varieties are also the most popular ones.

cooperatives have to change their business models and quality management. In this context they also have to make adjustments of their member policies. One way to combine their strengths with the requirements is to group their members according to the member firms' quality strategies. Even though the profile wine concept can be regarded as a (bigger or smaller) niche in the wine market, in general the competition with the foreign wines demands that the German wine growers and wine cooperatives steadily increase their wine quality – even for the bulk wine and mass wines. Consequently, German wine cooperatives must find strategies to overcome the problems resulting from the cooperative principles in general and the wine problems in particular.

### 3 Managerial challenges

#### 3.1 Homogenous member interests

German co-ops, which traditionally have had an open membership policy, possess rather heterogeneous memberships. However, because there is a tendency for Raiffeisen cooperatives merge, these merged cooperative are becoming more diverse in their business operations and their members are growing more heterogeneous. In general, members can be differentiated according to geographic dispersion, variances in age and education, farm size and type, well as business objectives and strategies (ILIOPOULIS/COOK 1999). BIJMAN (2005) deduces that membership heterogeneity could cause a number of inefficiency problems in the areas of agency, commitments, decision-making, opportunistic behavior, coordination, and strategic focus. Furthermore, FULTON/GIANNAKAS (2001) showed that the cross-subsidization and member heterogeneity in large, centralized, multipurpose co-ops may lead to substantial financial pressures for the co-operatives because their members do not see a strong connection between the success of the co-op and their own business. However, as Raiffeisen cooperatives can be characterized as being Janus faced, i.e. they are member-owned firms as well as associations of individuals, (ANSCHHOFF/HENNINGSSEN 1986) economic matters, in addition to social mechanisms such as trust and loyalty toward the cooperative firm, are of high importance. However, the more heterogeneous the members are the more, the more these social mechanisms lose their function (BIJMAN 2005).

In conclusion, it can be said that there seems to be a positive correlation between the homogeneity of members or their interests and the efficiency and success of the cooperative. Thus, cooperatives should aim to make their member interests more homogeneous. The introduction of “new generation co-operatives” in the USA shows that aligning specialized

farmers according to their interests or by the specialized marketing of their products is enhancing the cooperative performance (COOK 1995, HARRIS et al. 1996). In recent years so called umbrella cooperatives have been studied in this context. Such “multi-string co-ops” act as a kind of holding structure for different activities which are within themselves focused (BIJMAN 2005, FULTON/GIBBINGS 2000). Examples are Danish Crown in Denmark (NILSSON/PETERSEN 2001) and The Greenery in the Netherlands (BIJMAN/HENDRIKSE 2003). In the context of wine cooperatives, a concept called “strategic member groups” has been introduced by HANF/SCHWEICKERT (2003).

### 3.2 Mechanisms meeting the challenges

As was noted in the previous section, there is an incentive for Raiffeisen cooperatives in general and wine cooperatives in particular to overcome inefficiency problems caused by heterogeneous member interests. There are a variety of mechanisms for overcoming inefficiency. For example, cooperatives can find and/or create a common homogenous interest of all of their members by reducing their numbers so that only those members with homogeneous interests are left. Another approach is to segment their members according to their interests with the intention that homogeneous member groups will evolve. Based on this approach, HANF/SCHWEICKERT (2003) have defined “strategic member groups” as clusters of firms which have a similar strategy, target the same market, have homogeneous interests, and are a cooperative themselves or are a part of a cooperative. In other words, a strategic member group can be described as being homogeneous within itself and being heterogeneous against other strategic member groups. This definition shows that the idea of “strategic member groups” is derived from the idea of “strategic groups” which are used to detect the main rivals of a firm.

Because they are based on the work of MICHAEL PORTER (1980), the concept of “strategic groups” has to be seen in the context of the value chain and the generic strategies of cost leadership and differentiation market-wide and in niche markets, as well as the model of the five forces (PORTER 1980). Common segmentation criteria for “strategic groups” are: vertical and horizontal integration, market segments, cost structure, distribution channels, and size of organization (HOMBURG/KROHMER 2003). Even though there is a difference in the intention of the concepts of strategic groups and strategic member groups, i.e. while the concept of strategic groups tries to locate main rivals “strategic member groups” aim to group members with homogenous interests, there are also similarities between the concepts. KÜHL/SCHWEICKERT

(2005) showed that the market-based view is the main business strategy for German wine cooperatives with their own vinification.

Another similarity is that both concepts aim to create clusters. Because is derived from the idea of “strategic groups,” the concept of “strategic member groups” is able to use the segmentation variables of strategic groups’ further segmentation variables such as the one introduced by ILIOPOLIS/COOK (1999): the degree of geographical dispersion of the members, variance in members’ age and education level, the percentage of non-farm income, and differences in business objectives and strategy. HANF/SCHWEICKERT (2003) have mainly used segmentation criteria connected with the chosen quality strategy.

By creating homogeneous member interests, the concept of “strategic member groups” allows cooperatives to address inefficiency problems caused by heterogeneous member interests. The members, who share the same strategies and business interests, are willing to discuss the question of open membership versus closed membership as well as member selection by quality differentiation and marketing channel choices (HANF/SCHWEICKERT 2003). Additionally, since strategic member groups aim to increase efficiency, implementing this concept could re-attract the organizational form of cooperatives so that new co-ops are founded. by demanding tight quality management in the profile wine concept, two strategic member groups have emerged: is creating the “Classic” and “Selection.”

Because the profile wine concept of quality management demands more than simply waiting to see what the vintage will bring and then making the best with the raw materials, wine-growers need to know in advance which care and attention measures must be applied in the vineyard for the optimum grape quality needed for a special type of profile wine. These measures include appropriate vine-cutting, adjusted green cover and fertilization, special vine protection, desuckering, and thinning out surplus grapes. The “wet“ wine co-op know the quality levels to be expected by the documentation, therefore they have a certain level of security.

To produce profile wines, however, the “wet“ wine co-ops have to go one step further. For Classic they must rate the grapes before the press and divide their viticulturist in the strategic member groups ‘normal’ and ‘classic’. Only the grapes from the classic group can be vinificated as profile wine type Classic. Because they bring a higher price due to their higher quality the “wet“ wine co-ops pays more for the grapes. For the profile wine type Selection the “wet“ wine co-ops have not only to rate the grapes, also they must to rate the vines themselves. The oenologist of the “wet“ wine co-ops must choose the best vineyards of the members and define the criteria of the strategic member group ‘Selection.’ Viticulturists of this strategic member

group must adhere to the decided-upon measures for the vines. Therefore, the vines are rated and documented through the year at different degrees of vine development.

The membership of this strategic group among the members of the “wet“ wine co-ops has to be closed, because the vines must be rated, labor-measures in the vineyards must be defined over the year, and special harvesting requests must be fulfilled. If the strategic member group were to produce the best grapes of the “wet“ wine co-op and the profile wine Selection, then the vines have to be registered by the Federal Wine Authorities. Therefore the strategic member group “Selection” is closed by law.

#### 4 Results for wine co-ops

##### *Description of the sample*

Creating homogeneous interests can be considered a major factor in the success of cooperatives. Therefore we want to analyze in our empirical study the formation of strategic member groups in the German cooperative wine sector. In 2003 we analyzed the 144 wine co-operatives with their own vinification (“wet“ wine co-ops) by providing them with questionnaires. Sixty of them responded (response rate of more than 40%). The composition of the analyzed “wet“ wine co-ops is representative so that all German wine-growing regions are fully represented. Only the four small wine-growing regions with only one or two small “wet“ wine co-ops are underrepresented. The majority (78.3%) of the analyzed co-ops are between 51 and 100 years old. One-third of the “wet“ wine co-ops have between 100 and 200 ha of vineyards and the number of members ranges between 100 and 300. Fifteen percent of the sample produces on less than 50 ha and 10% have more than 500 ha. Only 10% of the co-ops (especially the “central-wine co-ops“ and big “wet“ wine co-ops with more than 500 ha) sell more than 50% of their products through retail. In contrast, predominantly “wet“ wine co-ops between 100 and 200 ha as well as those between 300 and 400 ha sell most of their products through the specialized retail market (wine stores). Small “wet“ wine co-ops (less than 50 ha) are the typical local heroes.

The research focused on the possibilities of “wet“ wine co-ops to create a competitive advantage. Because of the cooperative principles this advantage is only in the product itself or in the production process because the wine co-ops are not allowed to buy and sell other goods. The success of a wine is determined by various influences, however the type and taste of wine are mainly dominated by the grapes and the work at the vines (TROOST 1988).

##### *Measures of competitive advantage*

Our first question addressed measures to create this competitive advantage. On a five-point likert scale the cooperatives identified indicators that addressed the topics of yield per hectare, average oechsle, and rating the grapes, as well as creating open and closed strategic member groups. The results show that 71.7 % of the “wet“ wine co-ops pay the viticulturist corresponding to their “yield per hectare.” Through this payment-measure they request that the wine growers not exaggerate the potential of the vines. More often, the measure “average oechsle” was identified (80%). This procedure has a self-financing character. The “wet“ wine co-ops waiting for the payment until the vintage is over. Afterwards, they analyze the average degree eechsle for every variety. Based on these results, they pay a surcharge for those viticulturists who deliver grapes above the average-degree depending how many of the grapes exceed the average. Respectively, viticulturists who grapes below the average (less sugar content) receive less money. The least-used procedure was the system of rating the grapes before they are pressed (only 45%). This is a negative-selection procedure in which grapes not matching the minimum quality level are picked out. We suppose that one reason why the “wet“ wine co-ops hesitate to implement this procedure is the missing positive incentive and the resulting negative mood if the grapes are not accepted after one year of hard work.

The concept of building an open strategic member group is opposite to that of negative selection. We consider the concept of an open strategic member group as a weaker form of the above-described concept of building a strategic member group. 73.3% of the analyzed co-ops offer their viticulturists the possibility to rate the grapes for the production of higher quality profile wine. With this method, the viticulturists receive more money if their grapes match the criteria. Corresponding to the demand for this type of wine, every member has the chance to join this open strategic member group.

One step further is the system of the closed strategic member group implemented by 78.3% of the “wet“ wine co-ops. Strategic member groups are not only implemented because of the production of the profile wines Classic and Selection. In addition to 48.3% of the “wet“ wine co-ops actually producing Classic, 25% of the co-ops produce according to the matching standards but they market these wines differently. Therefore, 73.3% of the “wet“ wine co-ops have open strategic member groups producing on a high standard. The same is true for Selection: 78.3% have closed strategic member groups but only 38.3% produce Selection or the corresponding ‘1.Gewächs’ (grand cru). This indicates the important role of building strategic member groups as a competitive advantage. The introducing of the profile-wine concept indeed enforced the building of strategic member groups

### *Success and strategic member groups*

Our second question addressed the connection between the success of the analyzed co-ops and the implementation of strategic member groups. By using a self-typing technique we considered that the success of co-ops is not only financial in nature, and therefore we considered an analysis of financial performance measures that was narrow in focus. Regarding open strategic member groups in particular, the successful (28 times) and very successful (5 times) “wet” wine co-ops built an open strategic member group. Additionally, every very successful “wet” wine co-ops implemented a closed strategic member group. In the group of the successful co-ops we found that 31 introduced a closed strategic member group. Thus, the overwhelming majority of co-ops implementing them are successful managing their co-operatives.

## 5 Conclusion

Traditionally most agricultural goods have been considered to be commodities and as a result, suppliers could easily be substituted. In order to create countervailing power, Raiffeisen cooperatives have been established in agribusiness for more than 100 years. Wine co-operatives, which are also Raiffeisen co-operatives, are self-helping organizations for wine-growers, according to their statutes. The legal aim of cooperatives is to improve the economic situation of the members by cooperating in vinification and marketing the grapes or their processed products. However, times have changed and wine cooperatives have to compete on the market, just as any other enterprise does. As a result, questions have been raised about the functioning of the traditional co-operative system.

In the literature, homogeneous member interests have been thought of as being significantly correlated with the success of cooperatives. In this context, we analyzed in our empirical survey the relation between strategic member groups and the success of “wet” wine co-ops. Strategic member groups can be characterized as clusters of firms which have a similar strategy, aim at the same market, have homogeneous interests, and are cooperatives themselves or are a part of a cooperative. Therefore, a strategic member group can be described as being homogeneous within itself and heterogeneous against other strategic member groups. Within such groups the open membership policy as well as the acceptance of any quality and quantity has to be questioned. Additionally, such groups should to have incentives – pecuniary or non-pecuniary – for producing higher quality products. Examples of strategic member groups are those within the cooperatives that produce wine according to the new profile wine concept. We observed a rise in quality among these groups. In our empirical study we found that this increase



of quality due to belonging to a strategic member group was correlated with better performance. We believe that cooperatives which adapt relatively early to the new requirements have a good chance of surviving in this highly competitive market.

## Literature

- ASCHHOFF, G. and E. HENNINGSEN (1986). *The German Cooperative System*. Publications of the DG Bank, Frankfurt am Main.
- BIJMAN, J. (2005). Cooperatives and heterogeneous membership: eight propositions for improving organizational efficiency. Paper presented at the *EMNet-Conference*, Budapest, Hungary, September 15-17.
- BIJMAN, J. and G. HENDRIKSE, (2003). Co-operatives in chains: institutional restructuring in the Dutch fruit and vegetable industry. *Journal on Chain and Network Science*, Vol. 3: 95-107.
- COOK, M.L. (1995). The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach. *American Journal of Agricultural Economics*, 77: 1153-1159.
- EILERS, C. and C.-H. HANF (1999). Contracts between Farmers and Farmers – Processing Co-operatives: A Principal-Agent Approach for the Potato Starch Industry in Galizzi, G. and L. VENTURINI (eds.) *Vertical Relationships and Coordination in the Food System*, Heidelberg, 267-284.
- FULTON, M. and K. GIANNAKAS (2001). Organizational Commitment in a Mixed Oligopoly: Agricultural Cooperatives and Investor-Owned Firms. *American Journal of Agricultural Economics*, 83: 1258-1265.
- FULTON, M. and J. GIBBINGS (2000). *Response and Adaptation. Canadian Agricultural Co-operatives in the 21<sup>st</sup> Century*. Saskatoon, University of Saskatchewan, Centre for the Study of Co-operatives.
- HANF, J. H. and E. SCHWEICKERT (2003). Co-operative Success by Forming a Strategic Member Group. Paper presented at the *Conference Vertical Markets and Co-operative Hierarchies*, Bad Herrenalb, Germany.
- HARRIS, A., STEFANSON, B. and M. FULTON (1996). New generation cooperatives and cooperative theory. *Journal of Cooperatives*, 11: 15-22.

- HOFFMANN, D. (2000). Winzer Genossenschaften - Mehr Marktorientierung gefordert. *Weinwirtschaft*, No. 3: 20 – 26.
- HOMBURG, C. and H. KROHMER (2003). *Marketingmanagement*. Gabler Verlag, Wiesbaden.
- ILOPOLIS, C. and M.L. COOK (1999). The Efficiency of Internal resource allocation Decisions in Customer-owned Firms: The Influence Costs Problem. Paper presented at the 3<sup>rd</sup> Annual Conference of the International Society for New Institutional Economics Washington, D.C., September 16-18.
- JOHNSON, H. (1995). *Der große Johnson – Die neue Enzyklopädie der Weine, Weinbauggebiete und Weinerzeuger der Welt*. Hallwag: Bern, 1995.
- KARANTININIS, K. and A. ZAGO (2001). Endogenous Membership in Mixed Duopsonies. *American Journal of Agricultural Economics*, 83: 1266-1272.
- KÜHL, R. and E. SCHWEICKERT (2005). Strategien in Genossenschaften – Winzergenossenschaften zwischen Market-Based- und Resource-Based-View. Paper presented at the conference *Gesellschaft für Wirtschaft- und Sozialwissenschaften des Landbaus*, Göttingen, Germany
- LAURINKARI, J. and J. BRAZDA (1990). Genossenschaftliche Grundwerte. In LAURINKARI, J. (ed.) *Genossenschaftswesen*. Oldenburg Verlag, Munich Vienna, 70-78.
- NILSSON, J. and S.B PETERSEN (2001). The Rationale of Traditional Co-operatives – the Case of Danish Crown. In S.O. BORGES (ed.) *The Food Sector in Transition – Nordic Research*. Oslo: Norwegian agricultural Economics Research Institute (NILF Report:2): 1-12.
- PILZ, H. (2002). Struktur der Genossenschaften – Im Interesse aller. *Weinwirtschaft*, No. 3: 20 – 23.
- PORTER, M.E. (1980). *Competitive Strategy: Technique for Analyzing Industries and Competitors*. Free Press, New York.
- SCHWEICKERT, E. (2005). Weinwirtschaft in der EU. In: MICKEL, W. W. and J. M. BERGMANN (eds.) *Handlexikon der Europäischen Union*. Baden-Baden: Nomos: 798 – 802.
- SCHWEICKERT, E. (2002). Informationsstandardisierung oder –differenzierung bei Profilweinen. *der Oenologe*, 30 (1): 3 – 5.
- SCHWEICKERT, E. (2001). Classic und Selection. *der Oenologe*, 29 (4): 3 – 4.
- TROOST, G. (1988). *Technologie des Weines*. Stuttgart: Ulmer.
- VON GIERKE, O. (1954). Das deutsche Genossenschaftsrecht. *Rechtsgeschichte der deutschen Genossenschaften*, Vol.1, reprint Graz.

## Appendix

Year	Number of Total	Number of with own vinification	Number of Member in tsd.	Total Production in Mio. hl	Sales in Mio Euro	Vinyards in hectar
1900	113		1			
1938	493	468	29			
1960/61	543	441	56	2.0	122,35	19019
1970/71	497	252	61	3.0	264,48	31769
1980/81	342	192	67	1,67	650,38	34935
1990/91	314	171	68	3,04	693,35	37148
2000/01	258	155	63	3,08	774,34	31417
2001/02	246	147	62	3,02	756,69	31238
2002/03	236	144	61	3,24	745,38	31342
2003/04	231	137	58	2,69	748,77	31056
2004/05	223	135	58	3,30	722,83	32073

Table 1 Development of wine co-operatives, Source DRV-Weinwirtschaftsjahr (2007)

Varity	Cultivated area	
	in hectar	in percent
<i>White Wine</i>		
Riesling	20794	20,4
Müller-Thurgau/Rivaner	14346	14,1
Silvaner	5383	5,3
Kerner	4253	4,2
Grauburgunder/Ruländer	4211	4,1
Weissburgunder	3335	3,3
<i>Total</i>	<i>64500</i>	<i>63,2</i>
<i>Red Wine</i>		
Blauer Spätburgunder	11660	11,4
Dornfelder	8259	8,1
Blauer Portugieser	4818	4,7
Blauer Trollinger	2543	2,5
Schwarzriesling	2459	2,4
Regent	2158	2,1
Lemberger	1612	1,6
Saint Laurent	669	0,7
<i>Total</i>	<i>37537</i>	<i>36,8</i>

Table 2 Dispersion of varieties, Source DRV-Wirtschaftsjahr (2007)