Power Changes and their Consequences for Cooperatives

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Abstract
Because wine growing and production require special knowledge, wine is usually not produced and marketed in vertically integrated food chains but rather in vertical collaborations also called “supply chain networks”. Due to the characteristics of wine, the networks in this sector are generally strategic networks. Such networks can be characterized as pyramidal-hierarchical collaborations which possess a focal firm (chain captain) coordinating the network in a hierarchical style. This means in the wine sector that the focal company faces the challenge to manage and integrate many (small) wine growers. Being the traditional form of horizontal cooperation cooperatives play a key role hereby. However, due to their status coops are member orientated which might result in integration problems in such customer-oriented supply systems. Furthermore, due to the pyramidal-hierarchical structure of SCN power is an essential part of them and the fact that it is very often unequally distributed among the participating parties is quite obvious, which might represent great difficulties for member-owned enterprise coops.

The aim of our article can be delineated from the problem setting. It is obvious that speaking about power in supply chain networks we do not refer to market power. But, what is really power? Studying the literature shows that there is no easy answer to this question. Thus, the first aim of our research is to elaborate on that question and to provide an answer. Knowing about what we talk we want to continue by analysing the power distribution between co-ops and retailers, and between coops and their members.

Keywords
Co-operatives, German wine sector, Power, Power distribution, Supply Chain Networks,
Introduction

The German retail sector has undergone a dramatic change over the last three decades. Whereas in the late 1980s retailers were still considered to be the secondary agents of food producers and their national brands, today retailers are not only dominating access to the consumers but also setting the rules in the food market. A reason for this development is the increased concentration within this sector. At present, the ten largest retailers have over 90% of the market share, resulting in fierce competition. Hence, in order to differentiate, German retailers started to upgrade their own branded products so that retail brands and retail-branded products are now household names. In order to achieve this upgrading particular products (e.g., wine and champagne) and product categories (fruit and vegetables) were chosen. However, due to some recent scandals (e.g., misnomer of expensive wines; high residuum of agro-chemicals in fruits and vegetables), retailers have to recognize that being now a ‘real’ brand does not only mean receiving the profits of branding but also that it means to be responsible for the overall product quality. It is observable that the perception of food quality of (German) society (consumers as well as politicians) has changed in recent years due to food scandals (BSE / FMD, rotten meat scandal etc.). As a consequence, now brand owners are not only liable for the quality of their own product but also for each step throughout the whole supply chain, including the quality of the ingredients. Hence, more and more vertically-coordinated agri-food business (strictly coordinated chain organizations) is evolving.

Since the evolution of chain organizations is prompted by a dominating party (such as a supply-chain captain), and other network actors are more or less heavily dependent on this focal actor, such collaborations become very specific networks. These networks belong to the typology of strategic networks characterized as ‘pyramidal-hierarchic collaborations’. In the context of vertical coordination, such networks are also called “supply chain networks”. These vertically-coordinated chain networks have a strategic goal, e.g. producing better quality or lowering costs. Therefore, they have a centralized coordination of all efforts and processes – hence, a strategic (chain) management. Because the supply chain captain is the initiator, designer, and coordinator of the network, it is obliged to conduct the managerial tasks: to get the other network members in the pursuit of the chain’s goals, even if it is against their own interests. Because of the existing dependencies and power asymmetries, the
chain captain is able to fulfil these tasks by coordinating the other network firms in a hierarchical style, i.e. the focal company has to have the power to align the actions of the network partners. However, at the same time the chain captain has to be careful not to inhibit the willingness to cooperate of the other network participants. Because of this paradox of cooperation and simultaneously (strict) coordination, the actual role that power plays in supply chains and networks has been discussed in varying ways. For many decades, there has been discussion about positive and negative effects of power, so that all opinions about the importance and crucial role of power in supply chain can be virtually split into two groups.

The first group of thought sees power as the major opponent of cooperation, with those in power being allowed to control others and to demand more value or maximize their own outcomes at the cost of others, leading to opportunism by partners. This dissolves many of the relational elements that are necessary for the development of effective supply chain relationships. However, the second group of thought sees that the concept of power is not necessarily negative. It is considered a central concept because of its ability to condition others and to stimulate necessary actions without the emotional attachment trust creates. This ability of power distinguishes it as an effective tool in coordinating and promoting harmonious relationships, solving conflicts, and enhancing performance of the entire network and its members.

The first aim of our article can be characterized by the ‘problem setting’. It is obvious that by speaking about power in supply chain networks, we do not refer to market power. But what is ‘power’? Research shows that there is no unanimous answer to this question. Therefore, the first aim of our research is to elaborate on the question of power. Furthermore, we will construct some hypotheses regarding the usage of power as a chain management instrument.

After clarifying the concept of power and conceptualising its effect on strictly coordinated chain organisations in general, we will continue by applying our ideas to the German wine sector. Hence, our second aim is to apply our general findings on the wine production chain, analysing the power play between cooperatives and retailers, and between cooperatives and their members. Due to the explorative nature of our study, we based the elaboration of our second aim on oral interviews which were conducted in 2009 as well as in 2010 at five major international food and beverage fairs (twice ProWein, Anuga, twice Fruit Logistica) in Germany. Furthermore, we strengthened this section with findings from a survey that was conducted for another project, but was found to have several results what was
well suited for this study as well. In addition, we conducted a comprehensive review of the Lebensmittelzeitung – the leading German food and beverage newspaper – for the last five years. The structure of this article is as follows: In the following section we will introduce the German wine sector and the German wine cooperatives. In the third chapter we elaborate on the notion of power and discuss its importance for strictly-coordinated chain organisations. Afterwards, we will discuss the power distribution and its implications for wine supply chain networks. The article concludes with a summary.

The German wine sector and cooperatives

Whereas in the 1980s retailers were still dominating in direct sales and sales of specialised wine and delicacies, today the three main distribution channels are discount retail chains (40% market share), retailers (30% market share), and direct sales from the producers (19% market share) (Schweickert, 2007). (See appendix for a detailed presentation of the German wine sector (Hanf/Schweickert, 2003). The increase of imported wines came hand in hand with the rise of supermarkets and discount chains – particularly from the new world. These large-scale producers are able to produce large quantities with an acceptable (‘drinkable’) quality at the lowest prices. Furthermore, from the beginning these producers targeted retailers as their main distribution channel, providing them with demanded quantities, modern IT and supply chain solutions. In contrast, the German wine sector is still dominated by small wine growers, with more than 34,375 wine businesses. Nearly half of these businesses cultivate less than 1 ha of 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. (Schweickert, 2007)

The rapid rise of supermarkets and discount chains was accompanied or caused by a change in consumer behaviour. Traditionally, in Germany, wine was drunk mainly in wine-growing regions. This wine was generally locally produced and bought directly from the growers or village cooperatives. However, today wine is drunk all over Germany (including non-wine growing regions) and most consumers are occasional wine drinkers. Hence, they are looking for uncomplicated signals, such as reputation of retailers or wine growing regions or countries, as well as brands to signify quality. Imported wines with an easily understandable and asymmetric information-reducing label could particularly profit from this development (Schweickert, 2001). Furthermore, retailers as customers are particularly interested in professional supply chain management, in terms of time delivery as well as minimum quantities. Therefore, only very large wine processors are able to meet these
demands. Because of these reasons, only a few German private wineries and wine cooperatives are able to supply the large retailers on a national level.

In the fiscal year 2004/2005, wine cooperatives produced 3.3 million hectoliters wine, accounting for nearly 35% of the total wine production in Germany. The acreage planted with vines by all members increased up to 31,342 ha, so that more than 31% of all German land area was under cultivation, in particular, in the regions of Baden, Württemberg, and Franken, where grape production is dominated by part-time viticulturists and membership in cooperatives is widespread. In these regions, cooperatives hold a market share of nearly 75%. In 2005, there were over 200 active wine cooperatives. However, only 137 of them possessed their own vinification facilities. (Schweickert, 2007)

The examination of the German wine market has shown that wine cooperatives have a special role within 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 cooperatives are indispensable to part-time wine growers (Hoffmann, 2000).

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

Traditionally, wine cooperatives sold the vast majority of their wines directly to the consumers or sold them via small local retailers in their neighbourhood. However, due to the changes in consumer behaviour and in marketing channels, cooperatives must use different distribution channels to market their products (Hanf/Kühl, 2008). Facing the demands of the large retailers, like continuously supplying them on a national basis, has led to some structural adjustments in the cooperative sector. Because the majority of the “wet” wine
cooperatives do not create enough quantity and financial assets, they cannot afford to have their own distribution force. Thus, secondary “central wine cooperatives” have gained importance. They mainly operate higher within the wine production chain, selling bottled wine from “wet” wine cooperatives 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 of the IT infrastructure (Schweickert, 2007). In general, the “central wine cooperatives” 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.

The problem of “wet” wine cooperatives is that the same price is paid for the same grape, graded into six predicate levels which are determined by a minimum degree of sugar content (°Oechsle). Therefore, each viticulturist that belongs to a “wet“ wine cooperative can produce the grapes for every wine that he wishes, regardless whether the grapes match the consumer quality criteria in taste (Hanf/Schweickert 2003). As a result, members select their unfavourable grapes so they can sell the better-quality grapes to other, mostly private-owned, enterprises. Furthermore, (wine) cooperatives members are simultaneously owners and suppliers (grape producers) and the cooperative firm is both the processor of the supplied grapes and owned by its suppliers (Eilers/Hanf 1999). Since neither leadership mechanisms nor selective terms of delivery can be enforced by the cooperatives, 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. In addition, wine cooperatives face the same problems as other cooperatives, such as free-riding problems, horizon problems, portfolio problems, control problems, and influence cost problems (Cook, 1995).

These issues lead to German retailers building new collaborations with private wineries rather than with cooperatives. For example, in order to offer a high -quality German red and white wine, the leading discount chain created an agreement with a leading winery in Baden. The winery agreed to deliver a certain quantity at a given (high) quality year-round. However, in order to be able to fulfil these requirements, they had to cooperate with a multitude of grape growers. In order to deliver their grapes these growers (some members of cooperatives) had to accept the strict quality measures and allow the oenologists of the winery to inspect and monitor the grapes year-round and to tell the growers which
applications and cuts need to be made (LZ 2009a,b). This example shows that, in order to stay in the retail marketing channels that are strictly vertically coordinated, one has to accept their demands as well as be able to influence the decisions and the processes of their own suppliers. Hence, in this situation, power could be considered as key to a successful chain management.

**Power**

Several studies on marketing channels have shown that channel power has a significant impact on the buyer-supplier relationship and performance in channel distribution (Liu and Wang, 2000; Lee, 2001; Hingley, 2005; Leonidou et al., 2008; Zhao et al., 2008; Yeung et al., 2009; Sheu and Hu, 2009). The power relationship also has implications in the development of partnerships as the structure of the power-dependence relationship (Kumar, 2005). It is agreed that power is central to understanding the nature of the supply network, the power structures that exist within it, and to implementing procurement and supply chain strategies (Cox, 2001, 2003; Crook and Combs, 2007; Ireland and Webb, 2007; Flynn et al., 2008; Ganesan et al., 2009; Sheu and Hu, 2009). In the context of supply chains and networks, research has shown that the role of power is crucial in that through its interactions with other elements of the relationship atmosphere, it can seriously impede cooperation (Cox, 2001; Caldwell 2003; Watson et al., 2003; Corsten and Kumar, 2005; Tokatli, 2007; Yaqub, 2009), though others see power in supply chains not only as a negative force (Chung and Kim, 2003; Hingley, 2005; Maloni and Benton, 2000; Sodano, 2006).

According to the literature, there is no doubt that power represents a very important issue when studying supply chain networks and marketing channels, but what is ‘power’? It seems like there has been much disagreement about its exact definition. In fact, the problem with defining ‘power’ is that it has many various definitions and conceptualizations (Dahl 1957). Authors who have focused on this problem agree that power is an extremely troublesome, elusive, notoriously evanescent and subjective concept (Bierstedt, 1950; Bachrach and Baratz, 1962; Ramsay, 1996); a vague, poorly defined ‘primitive’ term (Hage, 1972); and a difficult idea to pin down (Clegg et al., 2006). After reviewing roughly 250 definitions of power from the fields of sociology, psychology, political science, economics, management, marketing and chain and network science we fully agree with Cartwright (1959) who points out that many authors ‘invent’ their own definitions in order to suit their needs. Following advice of Bacharach and Lawler (1980), who state that ‘when doing
research in order to capture the term of power we must identify a more concrete phenomenon or idea to which the primitive term points’, we concentrate on definitions presented in the field of supply chains and marketing channel literature.

Most definitions of power within studies on marketing channels are based on the definition by El-Ansary and Stern (1972), who define power as ‘the ability of a channel member to control the decision variables in the marketing strategy of another member in a given channel at a different level of distribution’ (p. 47). Power in supply chains is defined as ‘the ability of a firm to own and control critical assets in markets and supply chains that allow it to sustain its ability to appropriate and accumulate value for itself by constantly leveraging its customers, competitors and suppliers’ (Cox, 2002, p. 3). The concept of critical assets in supply chains is based on the idea that some resources are considered to be scarce or unique and that with the combination of high value, uniqueness and scarcity, particular supply chain resources become critical assets. Hu and Sheu (2005) view power in terms of a strategy-influencing source that is oriented from one channel member to another (p. 448). As a result, power is viewed as a effectively applied means to gain certain objectives by utilizing influence strategies, once the power over another firm was attained (Hu and Sheu, 2003; Payan and McFarland, 2005). Other recent literature on power in supply chains and marketing channels uses more or less similar definitions of power and simply rephrase aspects of using power to influence other firms to act in a desired manner for economic gains (Ireland and Webb, 2007) or to get them do things that they would not normally do (Reid and Bojani, 2009) and having a great deal of influence over the other members (Cant et al., 2009).

An examination of all of these definitions of power from different perspectives allows us to conclude that power generally refers to the ability, capacity or potential to get others do something; to command, influence, determine or control the behaviors, intentions, decisions or actions of others in the pursuit of one’s own goals or interests against their will, as well as to induce changes, to mobilize resources, to restructure situations, etc. All definitions of power seem to use similar terms and have a common theme.

French and Raven (1959) identified five types of power, each based on its source or origin: coercive, reward, expert, legitimate, and referent power. Coercive power enables an individual to punish others. In the supply chain network context, it reflects the fear of a network member to be punished if it fails to comply with the requirements of the focal company. Reward power depends on the ability of the power holder to offer rewards to others. If a focal company has access to resources which are valuable for other network
actors, it can make these network actors perform in a desired way. Expert power is derived from the skills or special knowledge of a particular subject. With a supply chain network, the expert power of a focal company can be achieved if the network actors believe that it possesses a special knowledge which is valuable to them. Legitimate power stems from a legitimate right to influence and an obligation to accept this influence. In this case, a focal actor is recognized in the eyes of the network members as having a right to make specific decisions. Referent power depends on an ability to be attractive to others and depends on the charisma and interpersonal skills of the power holder. In the supply chain context this power is observed when network actors want to join a network.

**Hypotheses in the context of supply chain networks**

Substantive literature has found that coercive power led to an undesirable cooperative relationship (Brown et al., 1995; Maloni and Benton, 2000; Benton and Maloni, 2005). The use of coercive power may have a negative effect in the sense that the weaker parties may lose interest in the relationship. However, some authors see coercive power having a positive effect in promoting coordination and development of stable relationships (Stern and El-Ansary, 1992; Bachmann, 2001).

**H1**: Within a supply chain network, the perceived use of coercive power will positively affect coordination and negatively affect cooperation

Effective coordination of exchange relationships has been observed as a positive effect of legitimate power, as the distribution of power becomes legitimate over time (Frazier and Antia, 1995; Kalafatis, 2000), and a more standardized business format is applied, such as contracts (Mohr et al., 1996; Lusch and Brown, 1996; Jap and Ganesan, 2000). However, the capacity to take legal action, especially to impose legal sanctions, could be perceived as a punishment (Gaski, 1986).

**H2**: Within a supply chain network, the perceived use of legitimate power will positively affect coordination and negatively affect cooperation

Referent power was ranked highest amongst other power bases in connection to satisfaction (Lee and Low, 2008). As cooperation has been found to go hand in hand with satisfaction (Gaski, 1984; Dapiran and Hogarth-Scott, 2003), we suppose that the use of referent power will foster the development of cooperation. However, referent power might not be sufficient to motivate the power target to the implementat certain tasks, since it does not represent an explicit statement of the desired behaviour.
**H3: Within a supply chain network, the perceived use of referent power will negatively affect coordination and positively affect cooperation**

Etgar (1976) states that an expert power source may be less effective as it is less flexible and is often viewed as unrelated to specific performance by channel members. Its effectiveness may also decline over time. However, when expert power is perceived as positive when solicited and given. Offering free advice through an agency and advisory staff as part of project implementation is seen to be a valuable incentive for the power target to get involved in the project (Davies et al., 2004).

**H4: Within a supply chain network, the perceived use of expert power will negatively affect coordination and positively affect cooperation**

Assuming that reward power is perceived as having an element of coercion to it, reward power will have a positive effect on coordination, since both reward and punishment provoke rapid changes in behavior (Dickinson, 2001). But reward power also provides extrinsic motivation, which drives to comply with the requirements, in order to achieve favorable outcomes (Zhao et al., 2008) and to create harmonious and enduring interorganizational exchange relationships (Gaski, 1986).

**H5: Within a supply chain network, the perceived use of reward power will positively affect coordination and cooperation**

**Power distribution along the wine chain**

Having clarified the construct ‘power’ and formulated hypotheses in the context of supply chain networks, we have to acknowledge that elaborating on the actual power distribution in a supply chain - e.g. in the wine chain - is a great challenge. Reducing this discussion to the market shares of certain players and then comparing these positions is by fare not enough. In order to conquer this challenging task in the following paragraph, we will first consider power within the relationship between retailer and cooperative. Afterwards, we will address power between cooperatives and their members. In order to exemplify our hypothesis, we conducted twelve interviews with leading managers of Germany’s wine business. We approached managers of the top five retailers at three major food and beverages fairs in 2009. Furthermore, at the same faires we also conducted further interviews with managers of specialised wine retailers, wine cooperatives, and consultants which were specialised in supply chain management in the wine business. These oral interviews were unstructured and lasted for roughly 30 minutes. Ex ante, we reviewed newspaper articles
from the Lebensmittelzeitung (the leading German business sector newspaper of the food and beverage sector) from the last five years in order to be prepared for the in-depth interviews. In preparation for the interviews, we also used results from previous studies. Furthermore, one of the authors has many years of professional experience as a winemaker and as a consultant in the wine business.

Retailer - cooperatives

Our newspaper review showed that retailers in Germany use the wine and champagne category in order to upgrade their retail brand (LZ 2007a,b). One retail manager stated that in their opinion, German wine cooperatives generally do not sell over well-known brands. Thus, he continued, they assume that if a consumer buys wine in a supermarket, the retailer is held liable for the product quality. An expert added that in the case of discount chains – counting for 40% of total wine sales - wineries and wine cooperatives most likely do not want to be recognized so they will remain unknown to consumers. Thus, if the retailer’s reputation/brand is held liable for the quality, it will demand control within the wine chain in building a supply chain network. Another retail manager stated that, by being liable for quality, his supermarket chain has to command the ability to influence the decisions and actions of their suppliers for supermarkets’ interest. Several cooperative managers spoke about the threat of blacklisting as the main source of coercion with retailers. Hence, we assume that the network structure (pyramidal-hierarchical) particularly gives the retailer coercive power. The retail managers agreed that they consider threats as an particularly effective means to achieve good coordination of the alignment of actions of their suppliers, e.g.- on time delivery. However, at the same time a cooperative manager told us that because of the frequent use of threats, he would stop the collaboration as soon as possible. One expert told us that in the case if a cooperative invests in special software of SAP retailers are willing to give better conditions. However, the use of reward power by retailers was found only – like in the example- when cooperatives implemented certain IT-enablers, such as EDI, and retailers would honour these efforts by creating more favourable conditions. Retail managers as well as cooperative managers said that in these instances, both coordination as well as the willingness to cooperate increased. One interviewee said that retailers command strong market positions which forbids arguing with them in regards their demands. This perception was shared by some other managers and experts. However, all said that the retailer’s position of power does not motivate them to collaborate more closely nor that it assists with the coordination efforts. All were in agreement that since retailers are interacting intensively with consumers, retailers
possess an enormous amount of knowledge about consumer demands and wishes and can therefore order their suppliers to produce exactly according to their specific standards. This shows that through expert power, retailers are very capable of influencing the actions of their suppliers. At the same time, none of the respondents indicated that these efforts negatively affected their willingness to cooperate. In a few cases, retailers with a high reputation (particularly emphasised by specialized wine retailer) regulated with referent power. Wine cooperatives hope to benefit from the retailers’ high reputation by becoming one of their suppliers. A further example was found in an article on Sansibar, one of the largest German specialized wine shops. Thus, we conclude that retailers use all power sources in order to regulate the market. As stated in our hypothesis, the use of the different power sources effects both the alignment of actions (coordination) and the alignment of interests (cooperation) differently. We found at the moment, retailers mainly use coercive power which is effective in chain coordination, but which deteriorates the collaboration between the retailers and their suppliers.

**Secondary (Central) cooperatives – primary cooperatives - members**

The retail managers interviewed made it very clear that they demand large quantities and such quantities are only available from the secondary (and a few large primary) cooperatives. Therefore, we conclude that these cooperatives are gaining in position power. The retail managers confirmed that they have high demands on the IT-infrastructure of their suppliers and once again only the secondary (and a few large primary) cooperatives are regarded as being capable of acquiring the demanded technology and the special knowledge needed to work it. Thus, due to the increasing demand of special knowledge, secondary cooperatives are able to build up expert power. Overall, it seems as if the secondary cooperatives and a few large primary cooperatives are gaining in power. However, both primary cooperative managers as well as some experts pointed out that due to the governing structure of secondary cooperatives, they command a higher degree of reward power and a lesser degree of coercive power because the management can easily implement a reward system but find it more difficult to implement a monitoring or sanction system addressing the processes connected with their owners – the primary cooperatives. Managers of primary cooperatives that deliver wine / grape juice to central cooperatives stated that when the central cooperatives try to use coercive power to achieve a better coordinated delivery, they refer to the demands of the retailers. The primary cooperatives accept these demands but do
not like them affecting the relationship with the central cooperatives. In their opinion, the same results can be achieved by using reward systems.

The retail and cooperative managers interviewed, as well as the experts, agree that the overall demands on quality have changed dramatically. Whereas in ‘former times’ wine quality was came purely from the vinification process itself, today the production methods of the grapes - i.e. the treatments in the vineyard during the whole year- are additional key elements for good vine quality. In order to achieve a higher quality in the process of grape production, the cooperatives have to possibilities. One is to use coercive means such as sanctions / price reductions when the grapes are delivered. A second alternative is to go to the wine growers and to offer farm assistance. In a former study in which we interviewed 60 wet wine cooperatives, we found the following results:

<table>
<thead>
<tr>
<th>Yield per Hectare</th>
<th>Average Oechsle</th>
<th>Grape Rating</th>
<th>Assistance programs</th>
<th>Intensive assistance programs</th>
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<tr>
<td>N Valid</td>
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<tr>
<td>Mean</td>
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<td>1.82</td>
<td>3.00</td>
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<td>1.408</td>
<td>1.657</td>
<td>1.565</td>
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<tr>
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<td>Range°</td>
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<td>5</td>
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<td>Maximum</td>
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Figure 1: Applied means to enhance the overall wine quality

In our survey 71.7 % of the “wet” wine co-ops pay the viticulturist according to their “yield per hectare.” Through this payment-measure, they encourage the wine-growers not to exaggerate the potential of the vines, resulting in higher wine quality. Because the value of the “Average Oechsle” with 1.82 is lower than the one for “yield per hectare,” “wet” wine co-ops (80%) apply the measure “Average Oechsle” more often. One reason is because this procedure has a self-financing character; the viticulturists are not paid until the vintage is over. Afterwards, they analyze the average degree Oechsle for every variety. Based on these results, they pay a surcharge to those viticulturists who delivered grapes above the average degree (depending how much the grapes are above the average). Respectively, viticulturists who deliver below-average grapes are paid less. The payment depends on the sugar content. The least-used procedure of the system was rating the grapes before they are pressed. Forty-five percent of the “wet” wine co-ops did not use this procedure of negative-selection, in which grapes that do not match the minimum quality level are picked out. The cooperative managers interviewed agreed that one reason why the “wet” wine co-ops hesitate to
implement this procedure is the missing positive incentive and the resulting negative effect if the grapes are not accepted after one year of hard work. 73.3% of the analyzed co-ops offer their viticulturists the option to rate the grapes during the year, but also offer basic assistance programs such as professional trainings and specialised seminars. Furthermore, bonuses (mark ups) are paid if their grapes match the set criteria. One step further is the offering of intensive assistance programs, implemented by 78.3% of the “wet” wine co-ops. The value 1.97 on the scale confirms that it serves an important role. Being an expert of wine production, the oenologist of the primary cooperative is in charge of the treatments within the vineyard and works with members in the vineyard to carry out the demanded cuts and application of fertiliser, pesticides etc. These findings of our prior study were also confirmed by the recent interviews and show clearly that cooperatives have to be very cautious in using coercive power to achieve the alignment of actions. If they chose to use their expertise (expert power), they are capable of aligning the actions and at the same time increase the willingness for cooperation by their members. One cooperative manager told us that he has the feeling that because the wine growers, as members, are also the owners of the primary cooperative, they identify themselves strongly with their cooperative. Because of this referent power, cooperatives are able to influence the decisions of their members. The importance of wine cooperatives as a common institution with a social impact, similar to a local government or a religious community, for their members is also confirmed by Hoffmann (2000). Overall our respondents showed that cooperative management is able to exert non-coercive power (e.g. expert and reward power) easier than coercive power in order to coordinate their suppliers (members). However, the respondents also agree that to a certain extent, the usage of coercive power is very useful and doesn’t affect the cooperativeness of the members.

Summary

Currently, it can be observed that strictly vertical-coordinated chains are gaining importance within the agri-food business sector. Such networks are managed by a ‘supply chain captain,’ i.e. - power is not distributed equally. Thus, power has to be considered as a main instrument for chain management. By clarifying the concept ‘power’ and identifying five different sources of power, we were able to build hypotheses of how power affects cooperation and coordination – the two main elements of chain management (Gulati et al. 2005). Discussing our hypotheses in the context of the German wine sector, in which cooperatives are still of high importance, we were able to show that power is a very useful tool for managing strictly-coordinated chains. However, depending on which source the
power originates from, its effect may be completely different. The ‘stick or carrot’ method (coercive or reward power) might have superb effects on coordination, since it provides extrinsic motivation to comply with the requirements in order to achieve favorable outcomes, but its overuse might hamper cooperation. On the other hand, other non-coercive power types (legitimate, expert power, informational and referent power) might be more appropriate to facilitate cooperation but less effective for coordination, since are less likely to be used in targeting a specific behaviour or performance, and though could provide intrinsic motivation and alignment of interests.

References


Appendix

The German Wine Market and the Role of the Cooperatives (HANF/SCHWEICKERT 2003)

Wine Consumption in Germany

Per-Capita-Consumption of Wine (including Sparkling Wine): 19.7 l (23.9 l)
Share of Wine-Type: 39% White Wines / 8% Rosé Wines / 53% Red Wines
Average Price for German Wines: 3.48 €/l  Average Price for Imported Wines: 2.97 €/l