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Motivation factors for organic wines. An analysis from the perspective of German producers and retailers

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Abstract. This study investigates the motives for producers that inform decisions to convert or not convert to organic wine production as well as the motives for retailers to offer or not offer organic wine and promotion of organic wine from producers' and retailers' perspectives. In total, 100 semi-structured in-depth interviews with 25 different types of retailers, 50 organic wineries and 25 non-organic wineries were conducted and analysed using content analysis and grounded theory. Additionally, the wine offers of 25 stores were analysed to develop an understanding of the distribution and promotion of organic wines. Producers choose to switch or not to switch to organic farming for primarily altruistic reasons. Because organic wine producers do not specifically focus on the organic nature of their wines in their communications, this attribute is typically disregarded by retailers and consumers during their wine-buying decisions, which undermines the growing demand for organic wine. There are significant differences between wine-growing regions in Germany and their vine cultivation conditions due to weather, the steepness of slopes and the attitudes towards converting conventional wine production to organic wine production. Missing knowledge and a low demand for organic wines are barriers for retailers to focus on organic wine. To our knowledge, this is the first study to investigate organic wines from numerous producers in every wine-growing region in Germany and various retailers in Germany. The focus on communication shows a lack in the knowledge transfer along the value chain of organic wine. Therefore, this study fills a research gap and provides valuable practical insight into the organic market for the wine industry and the scientific community.

Keywords: organic wine, Germany, producers, retailers, qualitative research

1. INTRODUCTION

In Germany, the agricultural area devoted to organic farming has almost doubled in the last 5 years, with around 10 % of German farmland now certified for organic farming. The USA and Europe are the largest organic markets around the world [1]. In 2016, Germany was one of the most important organic markets worldwide [2]. Nonetheless, although it has since lost its leading position and now occupies the sixth largest organic market in

Europe [1], it is still the world's largest market for organic wine [3].

Organic viticulture in Germany covers around 9 % of German vineyards, or 9,300 hectares in total. The supply of organic wine is similar to the organic food market, suggesting that the demand for organic wine is comparable to the demand for organic food [1]. However, several studies have indicated that the growing supply for organic wine is not a direct indicator of high demand for the product. Rather, according to findings by Remaud *et al*., Hoffmann and Szolnoki and Szolnoki and Hauck [4,5,6], the active demand for organic wine is small.

In addition, wine producers face many local and global challenges, such as climate change and a saturated wine market [7,8,9]. While the majority of organic wine (86 %) is produced in Europe, the number of German organic vineyards is comparatively small [10]. Moreover, traditional German food retailers and discounters with a high market share in the German wine market have increased their supply of organic food and wine [1,11].

The present study examines the motives that inform producers' decisions to convert to organic farming and the resulting changes in costs and sales structures and the motives of retailers to offer organic wine. The paper also analyses producers' and retailers' perceptions and promotion of organic wine to determine the driving factors behind the discrepancy between the supply and demand of organic wine. Finally, the study assesses consumer knowledge and the demand for organic wine to draw practical implications for the organic wine industry in Germany.

2. LITERATURE REVIEW

The motivators behind farmers' decisions to shift from conventional to organic production were evaluated in several studies. While ethical and lifestyle factors appeared to significantly influence farmers' decisions to convert to organic production in the past [12,13], today the decision making is more complex [14]. According to some authors, organic farming is more far-reaching than conventional production techniques and can involve social movements [15,16,17,18,19]. The conversion from conventional to organic production has been described as a major change [18] and transformation [20,21] that requires a strong need for change and an adjustment to mindset [22,18]. Xu *et al.* [23] found that conventional farmers are typically unwilling to accept the challenges of producing organic goods when they are already satisfied with their businesses. A study by Darnhofer *et al.* [24] examined different barriers and drivers on the organic markets in Austria, Italy and France. These are relations between organic agriculture and broader issues in the agrifood system such as structural change, environmental protection, gastronomic heritage, fairness in the food chain or export promotions. Within the EU, the history of relations within the agrifood stakeholders and consequently market structure, market power and interaction between these stakeholders play a crucial role in the development of the organic sector and differ in each country.

Karipidis and Karypidou [14] identified external factors as market factors, demand, price, distance to the market or point of sale, supply chain, certification schemes, technologies, institutional factors, social networks and knowledge transfer, relationships between market players and institutions, financial factors and the public policy. Furthermore, they described also internal factors such as farm business characteristics, farmers´ characteristics, demographic and other social characteristics and psychographic and behavioural characteristics.

According to a study by Castellini *et al.* [25], wineries most frequently convert from conventional to organic wine production for ethical reasons, followed by factors related to higher product quality and to differentiate themselves from other producers. In a qualitative research study, Bouzdine-Chameeva [26] interviewed organic wine producers in France and Italy to investigate their motivations, production approaches and marketing strategies, determining that their motives varied considerably. Risk, quality loss and the lack of recognisable international quality certification resulted in an ambivalent gap between the producers' ecological and economic goals. Although an EU organic label was introduced in 2010, Zander et al. [27] found in an international study in six countries that only about 15 % of consumers are aware of the label and the knowledge about its meaning is low.

The producers' motivations for converting from conventional to organic farming also varied significantly. When Siepmann and Nicholas [28] interviewed wine producers in Germany, they determined that soil protection is one of the primary motives for switching to organic farming. In addition, they found that some wine producers doubt the overall sustainability of organic wine production, especially regarding the use of copper. Ideologies for or against organic production are the main drivers for switching or not switching to organic farming.

Although the concept of organic farming was first introduced almost a century ago, its benefits to humanity and nature remain under debate. Reganold and Wachter [29] examined studies on organic and conven-

tional farming that had been published over the last 40 years, concluding that organic farming is generally more sustainable than conventional farming due to its lesser impact on ecosystems as a more balanced form of agriculture. They also determined that organic producers' yields are 8 % to 25 % lower than those of conventional winegrowers. Regarding organic viticulture, one German study surmised that due to slower wine growth and smaller yields, the productivity of organic vineyards is an average of 35.9 % lower than that of conventionally farmed vineyards [30]. These results were corroborated by an Australian study that observed that organic wine producers' yields are 21 % lower than those of conventional producers [31]. Siepmann and Nicholas [28] found that the lower yields of organic wine production are linked to efforts to increase wine quality and can be offset with higher prices.

In terms of economic sustainability, Reganold and Wachter [29] posited that organic farming can result in higher profits when the products are charged at a premium. Without these premium prices, the cost ratio decreases and is much lower than the cost ratio for conventional production. Nonetheless, according to Crowder and Reganold [32] and MacRae *et al.* [33], significantly higher labour costs in organic production can offset the lower costs for synthetic products and make the costs more comparable to conventional farming. Crowder and Reganold [32] also concluded that organic agriculture could only grow if it is financially profitable. Although Siepmann and Nicholas's [28] study noted that economic incentives are important drivers in decisions to convert to organic farming, it found that ideology was the primary factor that motivated these types of decisions. In a South African study that examined organic farmers' production costs and revenues [34] and explored whether conventional or organic farming benefited wine producers, the authors concluded that the benefits of organic farming depend on the price premium of organic wines. Regarding economic motivation, Zilber *et al.* [35] observed that because labour intensity increases production costs, farmers' decisions to produce organically should be informed by factors related to differentiation rather than expense.

Delmas and Grant [36] observed that consumer demand, subsidies and challenges to selling conventional wines are less relevant to the producers' decisions to convert to organic farming. This suggests that some wineries produce organic wines without seeking organic certification. Nevertheless, while most organic wine producers are proud of their organically grown wines and want to share this information with their customers by obtaining organic certification and labelling their wines as organic, organic labels can only prove successful if consumers are familiar with them and aware of the differences between organically and conventionally farmed wines. Fanasch [37] found that an eco-certification and individual reputation can have a significant, positively impact on the corporate performance.

Hauck and Szolnoki [38] reported that only 44.7 % of German consumers are aware of the EU organic label and that their awareness of other German certifications, such as Biokreis, Bioland, ECOVIN, Naturland and Demeter, are even lower. In Risius *et al. 's* [39] choice experiment with German consumers, they found that organic labels carried a positive part-worth coefficient that was rather marginal when compared to other attributes. A study by Gassler *et al.* [40] examined the willingness to pay for organic wine and found that organic labelled wines were perceived as tastier and of higher quality and value than conventional wines. Schäufele and Hamm [41] reported an attitude-behaviour gap in household panel data of organic wines in Germany. The results revealed that the expenditure share remained low for German organic wines. An analysis by Pomarici and Vecchio [42] assumed, that sustainability will gain in in the development of competitive advantage of single wineries and of country wine-supply chains.

Consumers buy organic foods for several reasons, such as health, taste and altruism [43]. These same categories apply to organic wine. Sireix and Remaud [44] determined that most wine consumers associate organic wine with health benefits. Consumers with strong health awareness are also more willing to pay a premium for organic wines [45]. A study by Fanasch and Frick [46] analysed 55,500 wines in Germany to find a significant price premium for organic and biodynamic wines, but the magnitude was far smaller than previous surveys and laboratory experiments expected.

Because wine is viewed as a luxury item, taste is a relevant factor during purchase decisions [47]. Altruistic motives for buying organic food, such as environmental protection and animal welfare, are usually not associated with wine production [36]. Consumers with a strong environmental orientation are often more willing to purchase organic wine [48] and pay a premium for environmentally friendly organic wines [49]. This sentiment was confirmed by Schäufele and Hamm [41], who examined six different segments of German wine consumers whose attitudes and purchasing behaviours towards organic wines differed significantly.

As mentioned earlier, there are similarities in the motives between purchasing organic foods and organic wines. Both products also encounter many purchasing barriers. To illustrate, customers are often hesitant to

buy organic food due to its higher pricing, inferior taste or because they are unfamiliar with or lack knowledge about the product [43]. Sirieix and Remaud [44] discovered that consumers typically perceive organic wine as more expensive than conventional wine. Consumers also have little knowledge about organic wine production [50,51] and often perceive wine as a natural product. As a result, there is not the same level of positive differentiation between conventional and organic wines as there is with conventional and organic foods [44]. Therefore, consumers of organic food rarely consider buying organic wine and purchase the conventional alternative more often [4]. For consumers who have little knowledge of organic wine, tasting it can have a positive impact on their perceptions of its quality [36]. Sohn *et al.* [52] demonstrated in their study that the organic wine purchase intensions can be influenced by social cues, which are increasing trust during the online purchase.

Zander and Janssen [53] found that consumers who regularly buy wine are more willing to purchase organic wine. This was confirmed by Szolnoki and Hauck's [6] study, which revealed that consumers consume more organic wine when they have a greater interest and more knowledge of wine.

As the literature review has illustrated, few papers have investigated producers' motives for converting to organic wine production [25,26,28] and consumers' perception of organic wine [36,38,43,44].

To date, no study has examined the challenges that organic wine producers encounter or how producers and retailers influence the consumer demand for organic wine. In addition, there is no study investigating organic wineries including all German winegrowing regions and dealing also with conventional wineries to identify the barriers to convert. Therefore, this study aims to analyse along the value chain the German producers' and retailers' perceptions of organic wine by addressing the following three research questions (RQ):

RQ 1: What are the motives for converting or not converting from conventional to organic wine production? Based on the findings in the study by Castellini *et al.* [25], Fairweather *et al.* [15]; Darnhofer *et al.* [16]; Rigby *et al.* [17]; Sutherland *et al.* [18]; Pavie *et al.* [19].

RQ 2: How are production and sales structures affected by organic wine production? Based on the findings in the study by Darnhofer *et al.* [24] Karipidis and Karypidou [14] Reganold and Wachter [29].

RQ 3: Why and how do retailers offer organic wine? Based on the fact that there are no publications dealt with the role of retailers and organic wines.

3. MATERIALS AND METHODS

Data for this survey were collected using a qualitative research method. This involved interviews with the managing directors of selected organic and conventional wineries in all 13 German wine-growing regions and wine buyers of retail stores. The face-to-face or telephone interviews were conducted by using semi-structured interview guidelines [54,55]. All experts, both form the wineries and from the retail shops, are in decision-making positions. The interviews were conducted in 2018.

The set of questions for the wineries covered the following topics: 1) the motives for converting to organic wine production; 2) changes in workload and cost after the conversion; 3) changes in sales structure; 4), the characteristics of organic wine consumers and 5), how organic wine is promoted. The retailers were asked about 1) the share of (German) organic wine in their range of wines; 2) the development of the demand for organic wine; 3) the reasons they listed organic wines in their wares; 4), the characteristics of organic wine consumers; and 5), the promotion of organic wine. All interviews were recorded and transcribed. Based on the derived research questions, theoretical assumptions were made in order to use grounded theory. The contents of the transcription were analysed before open, axial and selective coding with MAXQDA.

The interviewed wineries differed in location, size and according to the type of organic certification (or lack thereof) in order to cover a broad variety in the sample. The number of interviews per region depended on the size of the region. The aim was to analyse a heterogeneous set of organic wine producers and conventional wine producers. In particular, conventional wine producers were needed to represent each wine-growing region in Germany, as some regions have only a few or no organic wine producers. External validity was maximised due to the involvement of differently sized wineries. To increase internal validity, we selected wineries with various sales channels, instead of only direct sales, in order to cover the complete value chain of organic wine. Wineries with EU organic, Biokreis, Bioland, ECOVIN, Naturland or Demeter labels were included in the research.

The interviewed retailers sold organic wines either exclusively or together with conventional wines. The retailers were categorised as local retailers and retailers selling nationwide. We interviewed two owner-managed local supermarket, one supermarket, four organic supermarket and one discounter. Additional 17 specialised wine store owners were interviewed. Table 1 shows key data about the interviewed wineries and retailers. To

maintain anonymity, the names of the interviewed producers and retailers are not listed.

The interviews were summarised by performing a content analysis using an inductive scheme for coding the open-ended questions. Content analysis reduced the material while preserving the essential content so that the material could be reflected. Generalised and double answers were decreased, and the material was paraphrased based on a defined criterion and specific levels of abstraction. The results objectively reflected the material and were not influenced by our research questions. In a final step, the content was analysed and interpreted. Content analysis had been defined as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding [56]. We quantified and analysed the presence, the meanings and the relationships of the words and concepts in the interviews undertaken and then we made inferences about the messages within the texts [57,58].

Grounded theory is an open method that comes from qualitative social studies. The idea behind Grounded theory is to "generate new theory where little is already known" [59]. Grounded theory is a four-stage process: steps 1 (coding data) and 2 (memo writing) helped keep track of the interview results as they arrived. Steps 3 (theoretical sampling) and 4 (integrating analysis) facilitated sorting the topics of the interview memos and starting to create clear links between the emerging topics of the incoming interview transcripts.

Krippendorff's [56] special quality criteria were used to verify the validity and reliability of the study. Wineries and retailers of various sizes were selected from different wine-growing regions with several certifications, locations and sales channels (external sample validity). The potential interview partners were selected and contacted according to their certifications and interests, which had been defined beforehand (internal sample validity). All interviews were conducted and analysed by the same interviewer to ensure the consistency of the investigation (reliability).

In addition to the interviews, store tests were conducted to analyse the supply of organic wine at the point of sale. To this end, the following standardised criteria were considered: the number of wines in a store's selection, the organic wine share, the German organic wine share, the share of foreign organic wines and the labelling of organic wines.

These results provide a snapshot of the supply and promotion of organic wines during the tests and can be used to support the findings of the interview. In total,

Table 1. Interviewed wineries and retailers.

	Total number	Size/Type (Number)	Region (Number)
Wineries	75	≤ 5 hectares (12), 6–10 hectares (15), 11–20 hectares (31), 21–100 hectares (17); conventional (25); organic certified: Biokreis (2), Bioland (9), ECOVIN* (21), Naturland (2), Demeter (15)	Ahr (4), Baden (9), Franconia (5), Hess. Bergstraße (2), Middle Rhine (4), Mosel (4), Nahe (5), Palatinate (10), Rheingau (5), Rhine Hesse (11), Saale-Unstrut (4), Saxony (4), Wuerttemberg (8)
Retailers	25	specialised wine stores (17); organic supermarkets (4); supermarkets without focus on organic (3); discounter (1)	local (17); national (8); Baden-Wuerttemberg (2), Bavaria (2), Berlin (2), Hamburg (2), Hesse (4), Lower Saxony (1), North Rhine-Westphalia (2), Rhineland-Palatinate (1), Saxony (2), Thuringia (2)

*Double certification possible.

Table 2. Stores analysed in the store tests.

Stores/Characteristics	Number of stores	Number of wines in the range	Number of organic wines	Distribution
Discounters	5	487	19	National
Supermarkets	5	3756	218	National
Specialised wine stores (brick-and-mortar)	5	915	49	Local
Specialised wine stores (online)	5	3177	152	National
Organic stores	5	248	248	Local
Sum	**25**	**8583**	**623**	

25 stores were analysed in Germany; these stores were located in Baden-Wuerttemberg (4), Bavaria (3), Berlin (3), Hamburg (2), Hesse (4), Lower Saxony (2), North Rhine-Westphalia (2), Rhineland-Palatinate (2), Saxony (1) and Thuringia (2). In Table 2 the sum of offered wines across all stores are described.

4 RESULTS

4.1 Motives for converting to organic wine production

A variety of motives influenced the wine producers' decisions to convert or not to convert to organic farming (Table 3). Personal conviction was the primary reason underpinning decisions to favour or oppose organic farming. Wineries that switch to organic wine production are largely driven by altruistic motives, such as their responsibility towards nature and younger generations. An interviewee from a medium-sized winery summarised this outlook as follows: 'How can we not care about the environment when we are working in it?' Other motives were linked to product quality, the winegrowers' health, the birth of children or generational changes within the wineries. Therefore, although the producers who switched to organic production considered the market situation for switching to organic wine to be difficult, their decision-making processes rarely included market-related factors. As one organic wine producer said, 'At the time when we decided to switch to organic wine production, no one was asking for organic wine'. Economic goals were also negligible. In addition, while consumer demand proved not to be a motive for switching to organic wine production, especially for small producers, larger producers took economic factors into consideration more frequently.

Conventional wineries tended to evaluate the market situation in a similar manner. To illustrate, a representative of one of these wineries claimed as follows: 'We do not perceive a demand for organic wine or any restrictions in our sales because our wines are conventionally farmed'. Economic and market-orientated factors prevent conventional wineries from switching to organic farming. While 5 out of 25 of the conventional wineries still used glyphosate, most of them attempted to follow organic principles by adhering to environmentally friendly practices without certification. To that end, most conventional wineries viewed certification as a useless and overly complex process. By comparison, the organic wineries perceived certification as a means of providing evidence and control to consumers.

The conventional wineries believed that organic wine production was not necessarily more sustainable than environmentally friendly wine production, and they were particularly critical of the use of copper to protect plants in organic farming. In summary of the attitude that most conventional producers shared, one producer said, 'For me, it is less sustainable to use cooper instead of other types of plant protection'. Nonetheless, economic goals could sway a majority of conventional wineries to switch to organic wine production in the future.

Although personal conviction is typically the primary reason that conventional wine producers choose not to switch to organic farming, vine cultivation conditions in certain wine-growing regions are a more important factor. Due to the geographic distribution of organic wineries, some German wine regions only have a few organic wine producers. According to the organic and conventional producers in our sample, this is due to local weather and the conditions of vine cultivation. Certain wine regions, such as Mosel, Mittelrhein, Sachsen and Saale-Unstrut, have a large share of steep slopes, terraces and a decreased ability to work mechanically, preventing wine growers from switching to organic production. Because organic farming requires a higher degree of manual work and a greater commitment from personnel, the costs are considerably high. Nonetheless, organic wine producers in these regions did not view the higher workload and costs as obstacles to producing organic wine due to their personal convictions.

4.2 Influence of organic wine production on production and sales

According to the interviewed producers, there is no economic incentive for converting to organic farming.

Table 3. Reasons for and against switching to organic wine production.

For	Against
• More sustainable	• Less sustainable (due to copper)
• Responsibility towards nature and younger generations	• Lack of active demand for organic wines
• Producers' health	• Higher labour costs
• Certification includes control	• Local production conditions (e.g. weather, steep slopes, terraces)

All producers stated that the management of organic vineyards requires a significantly higher amount of work. They also noted that crop protection and pruning involve more procedures than conventional production. At the same time, protecting the crops against Peronospora and Oidium remains a challenge. According to the wine producers, organic wine production requires quicker reactions and shorter spray intervals. In addition, the approved crop protections are not as effective as they are for conventional products. The higher workload also requires more personnel and results in higher costs.

All organic producers reported a general change in cost structure and higher production costs. While crop protection costs decreased, labour costs increased significantly. As one organic wine producer remarked, 'We need more staff to react faster to weather conditions. At the same time, producers faced yields that were as much as 20 % lower when switching from conventional to organic production. Even before converting to organic production, wineries that farmed according to yield regulations were less affected by harvesting fewer grapes. However, most of the interviewed wineries stated that they had to charge higher prices due to their reduced yields. According to most producers, higher prices for organic wines are rarely accepted or not accepted at all in the organic wine market. In total, 42 of 50 respondents did not raise their prices after initiating organic production (Figure 1). The eight organic wineries that increased their prices after converting found it challenging to sell at these price levels, especially when compared to sales of conventional wines. According to a producer from a medium-sized winery, 'We were always compared with conventional wines, and if the quality of our wine is not better, most of the customers or retailers will not pay a higher price just because the wine is produced organically'. In this producer's opinion, customer acceptance depended on their individual attitudes towards organic products as a whole. Without a positive attitude towards organic products, consumers are less willing to pay more for a bottle of organic wine. In sum, there is no economic benefit for producers to convert from conventional to organic farming. However, our results indicate that despite the lack of economic incentive, these factors do not influence producers' beliefs in a more sustainable form of agriculture and their responsibility towards nature.

None of the interviewed producers lost customers after converting to organic production. Nevertheless, according to 40 of the 50 respondents, only a few clients asked specifically for organic wines. Although most wine consumers and retailers appreciate organic wine, wine quality, a winery's image and the price and relationship between a customer and winery play a more critical role in purchasing decisions. As one organic wine producer from Palatinate noted, 'Organic is nice to have, but if the wine is too expensive or does not taste good, customers will not buy it or buy it just once'.

Most wineries sell their wines through various distribution channels, such as direct sales, retail and gastronomy. Organic farming makes it possible to distribute wines to selected export markets, organic wholesalers or retailers. In traditional wholesalers and discounters, the active demand for organic wines is low. Furthermore, only larger wineries can supply these sales channels due

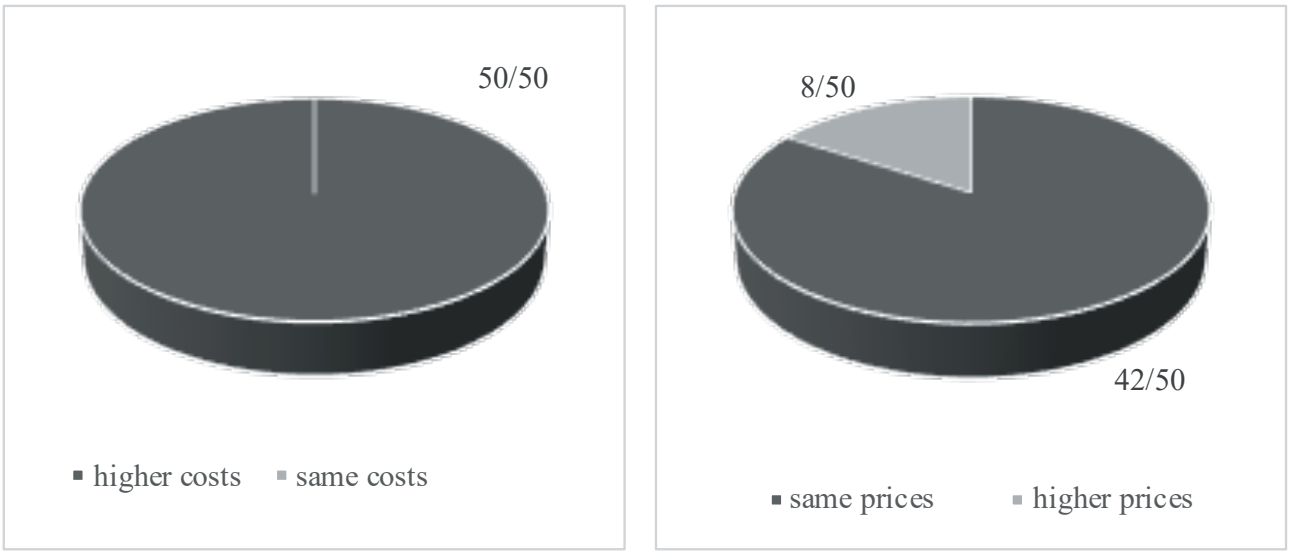

Figure 1. Impact of conversion on costs and prices. (n = 50 interviewed organic wineries).

to the high quantity and low prices of the wines that they sell. Some organic wineries also believe that while certain distributors, such as traditional food retailers or discounters, offer organic products to improve their image, they do not carry the same personal convictions as organic food stores or organic producers.

Apart from the legal requirements to use the EU organic label, most producers do not actively communicate the fact that they have organic wine certification to consumers or retailers. Rather, they focus their communications on other factors, such as their history and/or the quality of their wines. Because the conversion to organic farming is mostly driven by personal convictions, organic wineries perceive certification as self-evident. This is one of the main reasons why several wineries do not market it as a unique selling point to promote their wines. The fact that wine consumers often lack knowledge about organic labels and wine production is another reason that wineries choose not to promote their organic certification. This discrepancy is illustrated in Figure 2.

4.3 Organic wine in retail

According to retailers, the market share for organic wine has risen continuously over the last ten years due to the growing number of organic vineyards. However, organic wines only generate a small share of the total revenue from wines for many retailers. While traditional food retailers and specialist wine stores adjust their range of organic wines to meet their customers' demands, organic stores modify their range of goods according to their wholesalers' offers. Regardless, the critical factors driving a retailer's decision to include organic wines in their portfolio primarily include the quality, taste and price of the products. As one retailer asserted, ‚The value-for-money ratio is the main decision criterion'. The range of organic wines is dominated by foreign wines rather than organic wines from Germany. Most of these wines are cheap and from larger producers, as smaller producers are unable to deliver many bottles or offer their wines for a low price to stores like discounters.

In terms of price, traditional food retailers perceive the price of organic wines in Germany to be too high. As shoppers in traditional food stores can be quite sensitive to price, organic wines lose their attractiveness if they are priced above a certain threshold. Retailers at specialist wine stores appear to carry the same impression. According to the owner of one of these stores, ‚Some wineries start at 8 Euros per bottle. That is way too high for a basic wine in retail'. This indicates a discrepancy between the perceptions of organic wine producers and retailers. While organic wine producers in Germany view the price of organic wine as too low, most retailers consider the price of German organic wine to be too high.

In specialist wine stores, personal recommendations significantly influence consumers' willingness to purchase wine. This sentiment was confirmed by one of many interviewees: ‚The customers trust my choice'. When compared to products offered at traditional food stores and discounters, the range of products at specialist wine stores includes wine from smaller wineries and/or premium wines. The promotion and visibility of organic wines varies depending on the personal convictions of store managers. While some managers promote organic products as an added value, few consumers demand organic wines and the demand for vegan wines is higher.

The importance of organic labels within the distribution process is somewhat low, as most consumers do

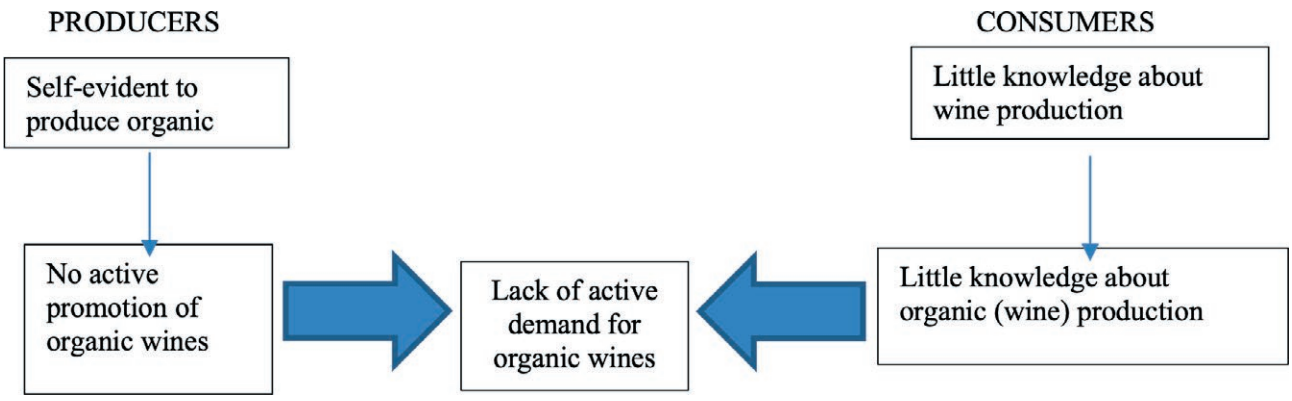

Figure 2. Discrepancy in communication of organic wines.

Table 4. Summary of store test.

Characteristics	Share of organic wine	Share of foreign organic wines	Share of German organic wines
Discounters	< 2 %	> 1.5 %	< 0.5 %
Full-range stores	< 2 %	> 1.5 %	< 1 %
Specialised wine stores (brick-and-mortar)	10–100 %	70–99 %	1–30 %
Specialised wine stores (online)	10–100 %	70–99 %	1–30 %
Organic stores	100 %	90–100 %	1–10 %
TOTAL			

not know enough about them and only some organic stores demand specific labels. Furthermore, retailers admitted that organic wines are rarely communicated in stores. They agreed that consumers have too little contact with organic wine and so rarely demand it. In particular, retailers who do not exclusively sell organic products claimed that the variety of organic wine labels can confuse consumers. At the same time, the EU requires an organic certification for retailers to promote organic products, which includes wine retailers, to avoid fraud. Since the range of organic products in discounters, traditional food stores and organic stores is typically higher than in specialist wine stores, larger stores are more frequently certified as organic and can promote organic products. For smaller specialist wine stores specifically, certification is not attractive due to the bureaucratic procedures involved and the lack of positive impact on sales. For these reasons, retailers have more or less the same incentive to buy organic or conventional wines. There is no widespread view on whether the inclusion of organic wines in store portfolios attracts new customers. As it stands today, only organic stores can gain new customers and increase awareness by offering organic wines.

In addition to these results, the store tests revealed that 7% of wine ranges were organic. Almost 80% of the stores offered organic wines originating from Germany, and 20% did not offer German organic wines. The most frequently sold organic wines were from France, followed by Italy and Spain. The share of organic wines ranged from 1% to 100%. Although organic stores or specialist wine stores with a focus on organic wines offered up to 100% organic wines, some traditional food retailers and discounters offered only a few organic wines or none whatsoever. Moreover, the share of German organic wines that were offered by traditional food retailers and discounters was under 1%. In organic stores, there was usually only a small selection of wines and rarely organic wines from Germany. The highest share of organic wines was found in specialist wine stores that focused on organic wines. On the other hand, some specialist wine stores offered only a few organic wines. Therefore, the amount of organic wines that stores provide can vary considerably (Table 4).

Apart from a few exceptions, German organic wines are generally underrepresented. The price can range from 1.59 Euros to 79.99 Euros for a 0.75-litre bottle. In the stores we tested, 80% of organic wines were priced between 4.00 and 7.99 Euros; 62% of organic wines featured one organic label; and 38% of organic wines featured two organic labels. More specifically, 97% of organic wines featured the EU organic label and 15% featured the German organic label. Some organic wines featured private organic labels, such as 13 % for Demeter, 12.5% for ECOVIN and 7% for Bioland. Most organic wines (95%) were only labelled as organic on the back of the bottle. To boost visibility, the majority of traditional food stores mark wines as organic on the price tag.

Regardless of the types of sales channels, all interviewed producers and retailers confirmed that there are no typical consumers of organic wine. Wine consumers vary widely depending on shopping location. Because traditional food stores and discounters have a large product range, they reach a wide range of customers. Specialist wine stores target an older, affluent and well-educated group. For some specialist wine stores and organic wine producers, women seek organic wines more often than men, even when the majority of their customers are male.

Other retailers described a lack of loyalty for organic wines, indicating that wine consumers who buy organic wines also buy conventional wines. At this stage, it is clear that certification plays a less significant role in purchasing decisions than other factors, such as price, taste, wine quality and personal recommendations. Communications about organic wines within stores, which could attract attention and boost interest in organic products, are very rare. As one retailer described, 'Organic wines are just like conventional wines. For us, there is no difference. That is why we do not promote organic'.

5. DISCUSSION

Similar to the findings by Castellini *et al.* [25] and Siepmann and Nicholas [28], our study confirms that personal conviction is the primary reason that winegrowers in Germany choose to convert to organic farming in all winegrowing regions in Germany. Nevertheless, this is the same factor that prevents conventional wineries from converting to organic production. Other reasons that discourage conventional wineries from producing organic wines include lack of demand and challenges related to production, such as steep slopes or unsuitable weather conditions. As such, some winegrowing areas in Germany have a higher share of organic wine producers than others.

Regarding the production costs of organic wines, German wine producers complain about the lower yields and the increased costs of higher staff requirements. Studies by Reganold and Wachter [29] and Hough and Nell [34] arrived at similar conclusions about the cost structure of organic wine production. Surprisingly, only 15 % of organic wine producers who have been impacted by higher costs have raised their prices. Nonetheless, organic wine producers consider organic wine production to be the only sustainable form of agriculture that is suitable to the production of grapes and wine. According to Crowder and Reganold [32], organic agriculture will only grow if it becomes more financially profitable than conventional agriculture. In addition, our results indicate that economic motives can influence most conventional wineries to convert to organic farming.

Our results are consistent with studies that have posited that consumers base their buying decisions on a variety of factors, such as wine quality, taste and their relationship with the producer [47]. A special interest in wine can increase the willingness to purchase organic wines at a premium [4,45,48,49]. Studies by Hoffmann and Szolnoki [5] and Remaud *et al.* (2008) [4] determined that at least one consumer group buys organic food but not organic wines. This segment of the population should be targeted by organic wine producers and retailers to increase their interest in organic wine and generate a more active demand for the product.

Because wine growers produce organic wines due to their personal convictions, there is a clear gap in the way they communicate their beliefs to consumers. In line with previous research, the present study found that a lack of knowledge about organic farming serves as a barrier to buying organic food [43,50,51]. Furthermore, consumers' unfamiliarity with organic wine is the primary contributor to the product's low demand. For organic wine producers, communicating about organic wine is critical to better informing potential consumers. Active communication can increase consumers' knowledge and familiarity with organic wines and grow the active demand for the product as a result. In addition, because the current study confirmed findings by Delmas and Grant [36] and Szolnoki and Hauck [6] that consumers lack knowledge about different organic wine labels, the role that organic labels play in the sale of organic wines must be reconsidered. Increasing their knowledge about these labels and what they represent will likely boost the active demand for organic wines.

When selecting wines for their portfolios, most retailers and consumers base their decisions on similar attributes. Retailers are important gatekeepers in the distribution process. For this reason, producers must consider the wine purchasing processes from both consumers' and retailers' points of view. Only retailers who believe that a product's organic designation is important to the purchasing decisions of their consumers will actively communicate organic certification or show willingness to educate their customers about the production of organic wines. Therefore, organic wine producers should emphasise that their products are organic to both consumers and retailers during the purchasing process. According to the retailers in our study, the cost of organic wine is not necessarily higher than the cost of conventional wine. Nonetheless, there is a clear price difference between German organic wines and organic wines from foreign countries. As such, the higher price of German organic wines can serve as a barrier to consumers (and retailers) that prevents them from purchasing organic wines from Germany. According to the perceptions of organic wine producers and retailers, no typical organic wine consumer exists. Organic wine producers agree with Barber *et al.* [48], who found that consumers with a strong environmental orientation have a greater willingness to buy organic wine. However, in contrast to Schäufele and Hamm [41], who defined six different segments of German wine consumers based on their attitudes towards and purchasing behaviour of organic wine, Szolnoki and Hauck [6], who also defined organic wine consumers, wine producers and retailers, were unable to identify a typical organic wine consumer.

Our results can afford the following recommendations to producers and retailers: 1) Use organic stores as distributions channels. Organic stores can play a critical role in the distribution of organic wine since shoppers in these stores have a special interest in organic food and are therefore more predisposed to purchasing organic wine [53]. In addition, because organic stores sell organic wines only, there is no com-

petition from conventional wines. 2) Producers and retailers should practice active communication. For consumers to familiarise themselves with and gain knowledge about organic wine, producers and retailers must teach them about the product. They can achieve this by practising active communication. Moreover, organic wine producers should actively communicate about their products with their retailers, as retailers are intermediaries at the interface between producers and consumers. 3) Improve communications about organic wine labels. The low level of consumer knowledge about organic wine labels can result in a low active demand for organic wine, as consumers may not understand the relevance of the different labels. Therefore, to garner the support of organic associations and make organic wines more accessible to consumers, communicating the purpose of these labels is vital.

The present study can help organic wine producers reduce the communication barriers between producers, retailers and consumers that result from issues with supply and a lack of knowledge about organic wine. Because this study adopts a qualitative research approach, it may be limited in that its results cannot be generalised on the total population. Although the study aimed to interview and analyse the input from many experts, its data are not representative. Nonetheless, we made an adequate sampling with a solid data collection and analysis. This study provides a general overview of wine producers' and retailers' perceptions towards organic wine and the organic wine market in a heterogeneous sample. Therefore, because the study only covers data from producers and retailers, consumers' attitudes towards organic wine may be investigated in subsequent research. While consumers purchase organic food, the reasons they hesitate to buy organic wine require further analysis. As consumer knowledge about organic wines and their motivations to purchase and consume these products remain unclear to producers and retailers, we recommend another qualitative study that examines these factors. Based on these results, a quantitative study could also provide representative results, allowing strategies to be defined according to the knowledge, personal attitudes and shopping locations of consumers.

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LIST OF ABBREVIATIONS

BÖLW – Bund Ökologische Lebensmittelwirtschaft, Organic Food Production Alliance in Germany
FIBL – Forschungsinstitut für biologischen Landbau, Research Institute of Organic Agriculture in Swiss
IFOAM – Organics International
IWSR – International Wines and Spirits Record in UK
VDP – Verband Deutscher Prädikatsweingüter, Association of German Prädikat Wine Estates in Germany

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