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Article

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Prosumers in the wine market: An explorative study

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Abstract

Winning business models increasingly build on stronger integration of clients in the world of production. Empirical evidence on such prosuming for the wine industry is lacking. A multidimensional approach and 321 interviews with wine consumers allowed to explore presuming interest with descriptive, correlation, and a two-step cluster analyses. The study results support the relevance of customer integration in the world of wine. Two clusters divide the wine consumers: prosuming interested versus prosuming reluctant consumers. Against literature based expectations, demographics or wine knowledge are less cluster determinant. Challenging wine consumer groups, especially the younger generation, can be attracted via prosuming. New client relationships can be built with loyalty and price premium opportunities in a market where these two success variables are under pressure. Despite a general openness and curiosity from the client side the interviews revealed no enthusiasm for prosuming and disclosed a segment of clients with low and limited involvement interest. Hence careful resource allocation is recommended. Prosuming needs managerial attention and a strategic approach adapting the business model to integrate interested clients.

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Keywords: Prosuming; Co-creation; Involvement; Strategy

1. Introduction

Prosuming or co-creation describe the idea of “*producing consumers*”. Prosuming blurs historical boundaries of separated worlds of producers and consumers where producers supply products or services that consumers then buy and use (Firat and Dholakia, 2006; Kotler, 1986; Prahalad and Ramaswamy, 2004). The integration of producers and consumers requires suppliers to lean on involvement, empowerment, and partnering with their clients. Client integration into tasks of the suppliers creates winning value propositions and results in a closer relationship with customers (Carbonell et al., 2009; Kumar, 2004; Vivek et al., 2012). Brand awareness and loyalty increase, and companies can lock-in their customers emotionally (Hollebeek, 2011b; Hollebeek, 2011c). Prosuming interfaces secure that clients get used to processes and therefore stay with familiar providers (Grün and Brunner, 2002). Prosuming stimulated a new paradigm in marketing which

allows to win or keep clients in increasingly competitive environments (Bandulet and Morasch, 2005; Kotler, 1986). It facilitates a synchronized pursuit of customization and mass-market-approach (Grün and Brunner, 2002). Meanwhile general literature on prosuming is extensive, research in the context of the wine industry is limited.

Prosuming in wine can be observed in practice with sporadic examples and missing evidence for design or value creation. Empiric research on prosuming in wine is scarce. In lack of empirical work, an interview-based study intended to contribute to the concept of prosuming and to provide orientation for wineries. The market that served for this empirical study on prosuming, the German wine market, is mature and competitive and, therefore, suits prosuming investigation. A lot of players are forced to exit the market (Schallenberger, 2009) with the remaining ones increasing in professionalism but still struggling to be profitable (Mend, 2009a, b; Oberhofer, 2011). Producers are suffering from the increasing market power of indirect sales channels and decreasing customer loyalty (Haucap et al., 2013). Since wine is an experiential good where interaction with the producer can represent an important

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utility for the wine customers, co-creation was expected to be in the interest for both, wine producers and consumers (Hall, 2010; Orth, 2010; Pine and Gilmore, 1998; Riviezzo et al., 2011). The study approach leaned on grounded theory methodology (Suddaby, 2006). Face-to-face interviews with 231 wine consumers provided insights into consumers' interest in wine co-creation and allowed to explore client clusters examining attitude, preferences, and behavior by descriptive, correlation, and cluster analyses. Focus was laid on quality data generation and exploration (Corbin and Strauss, 1990; Suddaby, 2006).

The following literature review illustrates the relevance of prosuming and points out that the research community welcomes additional research in regards to co-creation in the wine industry. Section 3 details the conceptual basis for the research approach and presents the research questions, the study design, and the chosen variables falling back on the literature. Results of the interviews are then presented and discussed. The paper concludes with key insights, practical implications, the limitations of the study, and hints for possible future research.

2. Literature review

Prosuming draws considerable attention in the marketing literature. It illustrates a change in marketing paradigm from product-orientation to customer-centricity. This transition alters the interaction of suppliers with their customers and forces companies to adapt their business models. Adjusting the offerings and opening the business models for active client engagement is declared to be a key success factor to win clients in increasingly competitive industries but at the same time to allow for increase in efficiency (Firat and Dholakia, 2006; Grönroos, 2007; Kotler, 1986; Toffler, 1980).

Consumers experience far-reaching integration into the world of production. In today's grocery shopping for example, buyers extend self-servicing to scan purchases at cash registers. Indeed, first shops without employees are in realization. Customers perform task of suppliers in the course of product design, creation, and the marketing and sales. Besides a paradigmatic change for customer orientation technological innovation fosters the implementation of offerings characterized by deeper and more extensive integration of consumers in the world of the suppliers (Bandulet and Morasch, 2005; Bloemer and Ruyter, 1999; Carbonell et al., 2009; Goodman et al., 1995; Grönroos, 2007; Klioutch and Leker, 2011; Kotler, 1986; Kumar, 2004; Ravald and Grönroos, 1996; Toffler, 1980; Vivek et al., 2012; Wilson, 2005). Flight passengers check-in with mobile devices, a process formerly in the realm of the ground handling staff of an airline or a service provider. Hotel destinations are chosen considering the evaluations of former guests via the internet. Consumers communicating positive judgments, thus, act as marketers by voluntarily sharing their experience. Persuaded clients invite friends to present products and act as brand ambassadors. Indeed, successful new business models are characterized by an increasing number of tasks being performed by the

customers spanning the whole value chain from R&D, to production, to sales and marketing (Schreiter, 2003; Vivek et al., 2012). Potential users of products, for example, link into the creation processes of products, and services (Chien and Chen, 2010) to influence, modify and upgrade new products, services and offers (Füller et al., 2009). Due to extensive engagement and integration customers become partners of the producing organization (Firat et al., 1997).

Empowered and more active clients benefit both parties (Vargo and Lusch, 2008). Prosuming decreases costs and increases efficiency as well as effectiveness for producers and consumers. Clients assemble furniture or plug in data for online banking processes what formerly drew upon producers' resources (Voß and Rieder, 2005). Integrating consumers in R&D safeguards from offering expensive features not valued by clients. On the other hand, customers thereby reduce their search costs since the designed services or products better fit their needs. Time-consuming data checks, validation or return processes can be saved when consumers fill forms or if products are tailored to individual needs (Chien and Chen, 2010). Involvement impacts the customer experience, and extensive integration is key in innovative business models (Bruhn and Hadwich, 2012). Producers gain increased market share, higher returns, and financial profits (Grün and Brunner, 2002). Market pull hence replaces the historic model of suppliers pushing products into the market mainly on the back of strong marketing (Dell'Era and Bellini, 2009; Kumar, 2004; Prahalad and Ramaswamy, 2004). Involvement and prosuming become important factors in the buying decision (Schmitt, 1999). It stimulates a more intensive relationship and, therefore, brand recognition (Pine and Gilmore, 1998). Extensive and innovative interaction with clients to develop products, services, and offers enables producers to outperform competitors. Prosuming thus offers great potential to reach and win new clients, increase client loyalty, achieve better products, increase efficiency, cut costs, or improve processes (Chien and Chen, 2010; Grün and Brunner, 2002; Reichwald and Piller, 2005; Sharma et al., 2010).

A review of the wine specific literature discloses less attention on prosuming but extensive publication on involvement. Wine is an emotional and experiential good and therefore requires more intensive engagement in the course of the buying process than less complex products (Ashenfelter, 2008; Gergaud and Livat, 2007; Häusel, 2008; Lachmann and Arnold, 2011; Schiefer and Fischer, 2008; Schneider, 1997). Indeed, wine can offer high emotional utility. A bottle of wine can cost less than \$2 but up to several thousand dollars (Storchmann, 2012) raising the level of engagement by clients (Becker, 2013; Engelbrecht et al., 2014). In the context of wine as an agrarian good where grapes depend on nature and vegetation involvement matters as well (Delacroix and Swaminathan, 1991). More empowered clients are more insightful to the natural volatility of yield and quality of wine. Being a category in the food and beverages market with multiple sales channels and increasing market power of distributors the changing relationship between clients and producers due to involvement is highly relevant. Overall,

involvement matters in the wine context independent from the perspective due to product complexity (Orth et al., 2007). As a result, involvement dominates wine-specific literature on customer–producer interaction. So far it is predominantly measured by engagement of clients in the buying process or by wine consumption intensity (Cox, 2009). In that context, more involved wine consumers were found to be characterized by deeper wine knowledge and interest in the wine estates, wine growers, and brands (Barber et al., 2009).

The concept of prosuming goes beyond involvement predominantly defined by customers' relative resource devotion in the buying process. Customer interest in regards to process integration in wineries is not researched. Prosuming calls for a two-way interaction of producers and clients purposefully creating a valuable experience (Altschwager et al., 2013; Altschwager and Habel, 2011; Hollebeek and Brodie, 2009). As clients actively perform in process steps of the suppliers, prosuming extends the notion of involvement to include active engagement of consumers, empowerment. It results in co-creation of producers and clients. Creative business models of customer integration in the wine world are for example realized by Naked Wines or Crushpad. In the case of Naked Wines, a community of wine buyers invests in wineries, sources the wines with reduced prices, and shares the individual evaluation of the wines within the network (Parkinson, 2010). Crushpad invites wine amateurs to participate in the creation of individualized wines through online decision processes (Gansky, 2010). Indeed, client integration into formerly solely winery activities spans from clients investing in a winery buying vine partnerships (Ress, 2015), internet-based customer integration in planting and production decisions (Leurs, 2010), customization of wines or labels by clients (Eilmes, 2015), to customers actively selling wine or communicating as wine ambassadors of a winery

complementing them in their sales and marketing efforts (Brogsitter, 2015) – hence covering the whole value-chain (see Fig. 1).

A positive view on prosuming sways the literature with few empirical studies for the wine industry. The evaluation of co-creation of branded marketing events at wineries concluded that such co-creation fosters the intention to purchase the brand in the future (Altschwager et al., 2013). So-called “episode activities” intensify the relationship by increased client activity (Carù and Cova, 2003; Foscht and Schlotter, 2012; Holbrook and Elizabeth, 1982; Ravald and Grönroos, 1996). Smaller and more recently established wineries were shown to be able to increase their marketing effectiveness through co-created storytelling (Golobic and Flint, 2013). Hence, the extended involvement of clients and co-creation helps smaller wineries to build a brand (Golobic and Flint, 2013), draw attention (Chrysochou et al., 2011), and cultivate trust (Altschwager and Habel, 2011). A case analysis by Garcia-Granata et al. (2013) manifested that while prosuming can be applied to the production steps of wine, the role of the entrepreneur in production-based co-creation needs to be choreographed to yield the expected positive impact.

3. Methods and material

Research on prosuming in wine has so far neglected the customer perspective (Garcia-Granata et al., 2013). The research community expressed the need to generate insights on the basis of empirical studies and proposes segment analyses (Barber et al., 2009), multidimensional approaches (Engelbrecht et al., 2014), profit impact analyses (Garcia-Granata et al., 2013) and to investigate the experiential adventure on the client side (Füller et al., 2009). In addition, the lack of orientation for practitioners whether an alignment

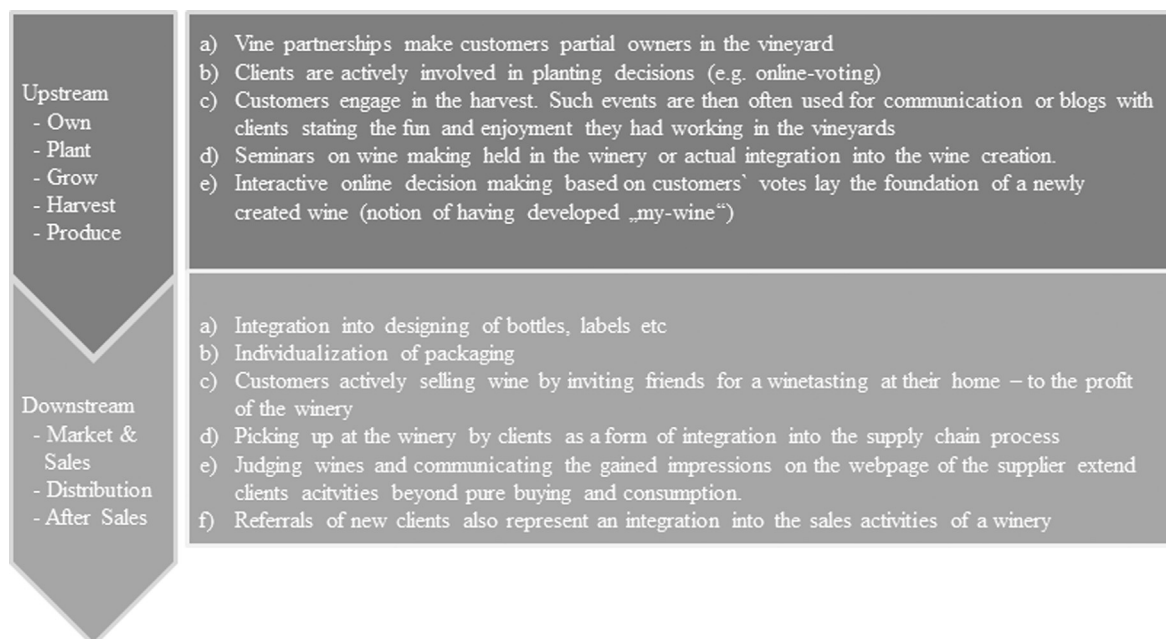


Fig. 1. Examples for prosuming in wine (value chain perspective).

of business models with extensive client integration is rewarding motivated for prosuming research (Kilduff, 2006). Three explorative research questions with according hypotheses extracted from the literature therefore guided the study.

Reverting to the literature review, attitude and knowledge constitute the utmost relevant variables in the context of general involvement (Thomas and Velthouse, 1990) and for engagement in the context of wine (Barber et al., 2009). Therefore, the first research question explores attitude and addresses the fundamental requirements for successful prosuming; evaluating whether consumers show a positive attitude towards prosuming in wine (Firat et al., 1997): Is it in the interest of the consumer to be actively involved and what are drivers for such interest? The hypotheses leaned on insights from involvement. Prior research bared that seniority correlates with wine involvement and consumption (Engelbrecht et al., 2014; Hussain et al., 2008). Knowledge about wine was found to correlate with involvement (McCutcheon et al., 2009). Higher knowledge was expected to correlate with prosuming interest. Less involved customers were expected to express inferior interest in prosuming. They rely predominantly on indirect wine channels while more involved wine drinkers prefer direct buys and are therefore more distant to the producers (Hoffmann and Szolnoki, 2012).

The second research question evaluated preferences: where to potentially integrate clients? Garcia-Granata's case analysis of wine co-creation (Garcia-Granata et al., 2013) pointed to the need to explore preferential aspects of integration alongside the value chain of wine producers. Wine production requires specific expertise of chemical or physical processes that is not needed when deciding on wine packaging, for example. According to prior research, preferences and purchasing behavior highly depend on gender, age, and knowledge (Kotler and Keller, 2009), especially in the context of wine (Barber, 2009). Men are apparently characterized by greater actual and self-assessed wine knowledge but use limited sources of information when purchasing (Bruwer and Thach, 2013). In the context of prosuming in wine, these findings nourish the hypotheses that men show higher interest in upstream engagement whereas women prefer to be integrated in downstream processes. A higher interest in upstream integration was expected for more senior and more wine knowledgeable people.

Research also disclosed that customer clusters are important in regards to price sensitivity and loyalty (Hoffmann and Szolnoki, 2012). Knowledge for example was disclosed to correlate with willingness to spend on wine (Engelbrecht et al., 2014; Hussain et al., 2008). The third research question investigated behavioral aspects with the ambition to explore the potential business implications of prosuming for wineries: Has prosuming positive impact on loyalty or willingness to pay higher prices?

The questionnaires accounted for the postulated multidimensional approach (Michaelidou and Dibb, 2008) examining a set of independent and dependent variables (Engelbrecht et al., 2014; Hollebeek, 2011a). In light of scarce research on adequacy, relevance, status, success factors, or consumer

interest in prosuming in the wine industry this study intended to contribute to the concept of prosuming by applying grounded theory methodology (Suddaby, 2006): data gathering and analysis were interrelated, the research validated conceptual paradigms not theories, and the testing and sampling did not claim to be representative (Corbin and Strauss, 1990). To allow for quick interviews in order to win interviewees the questionnaire aimed to be concise. Thus, the questionnaire design was simplistic (see questionnaire in appendix). It inquired consumers' knowledge about wine and age. Subjective knowledge was reported to be a better predictor of purchasing behavior than objective knowledge (Barber et al., 2008; Park and Lessig, 1981). The interviewees were therefore asked to judge their wine competence on a four-point scale from very weak to very high. Participants' age was recorded by age groups to avoid direct age questioning and to allow for comparison with the German wine drinking population (Szolnoki and Hoffman, 2014). In addition to demographic and attitudinal variables, behavioral variables for drinking intensity and primary occasion of wine drinking were added to the questionnaire (Engelbrecht et al., 2014).

The inquiry for preferential activities in regards to prosuming was realized using the value chain of wine production and marketing. The value chain was split into upstream activities (own, plant, grow, harvest, produce) and downstream activities (marketing, sales, distribution, after-sales). To clarify these categories in the course of the interviews examples for upstream or downstream activities were provided using real examples of the wine world as depicted in Fig. 1. Upstream winery activities require deeper wine knowledge (Garcia-Granata et al., 2013). Hence, the segment of consumers with an interest in upstream integration was expected to be more knowledgeable.

As recommended in the literature the dependent variables were also multidimensional (Spreitzer et al., 1997; Thomas and Velthouse, 1990). To evaluate the possible impact of customer engagement, the value of co-creation (Hollebeek, 2011a) was inquired via "perceived impact on loyalty" (Suh and Yi, 2006). This variable builds on the observation of positive emotions associated with engaged and empowered consumers boosting satisfaction (Bloemer and Ruyter, 1999; Leak et al., 2015) with higher loyalty to products and brands (Hollebeek, 2011c). Since engagement and underlying attitudes were expected to reduce price sensitivity (Barber et al., 2009), a second dependent variable explored the interviewees' subjective "perceived willingness to pay higher prices for presumed products or services" (Garcia-Granata et al., 2013).

The questionnaire was designed using predominantly binary or categorical variables related to attributes (e.g. age, gender) (Taylor-Powell, 1998), wine consumption, wine preferences, wine buying behavior, and interest and implications of being integrated into wineries' processes (Wooldridge, 2012). Integration interest was assessed for upstream and downstream activities.

In 2013, visitors to a German wine fair were interviewed. Wine fairs are events where attendees inform about wines and wine producers. Visitors pay an entry fee to experience wines

and to meet representatives of wine estates. Frequently, wineries invite their clients to the fairs. An online pretest preceded the face-to-face interviews at the wine fair. For the pretest, 600 clients of a winery were invited via Facebook postings to participate in an online questionnaire (Gilinsky et al., 2008) generating 47 responses. The later face-to-face study delivered 231 useable interviews.

Due to market maturity of the German wine market, a high degree of rivalry, and the suppliers' need to be proactive to win clients, preconditions for relevance of prosuming are fulfilled (Hoffmann, 2010a, b; MarketLine, 2012; Pilz, 2012; Schallenger, 2009). German wineries are puzzled by changing customer needs (Dressler, 2013). Changes in consumer behavior with a transition from traditional to modern values impact consumption and nurture competitive pressure with ongoing structural changes in the industry (DWI, 2003; Nitt-Drießelmann, 2013; Orth, 2010; Sociodimensions, 2013). Wine consumers increasingly explore new wines, alternative wineries, and innovative offerings. As a downside, suppliers experience decreasing customer loyalty (Schipperges, 2013). Although wineries communicate to be aware of the need to react to customer changes and state to alter and intensify the communication with the clients, the degree of interaction remains low (Jungbauer, 2012).

4. Results and discussion

A presentation of the descriptive findings is followed by the results of multivariate analyses and results discussion.

The sample size of 231 respondents split into 40% female and 60% male. In regards to age, 35% of the interviewees were younger than 35 years, 29% were 35–49 years old, 24% were between 50 and 59, 12% were 60 years or older. Compared to the wine drinking population in Germany, the “generation Y consumers” (younger than 35 years) in the study population was overrepresented whereas the senior wine consumer group of 60 years and older (baby boomers) was underrepresented (GfK, 2015; Szolnoki and Hoffman, 2014). The interviewed population was characterized by strong ties to wineries and producers. Only one fifth of the participants stated to rely predominantly on indirect channels to buy their wines whereas retail strongly dominates wine sales in Germany (DWI, 2014). Despite the obvious interest in wine due to the attendance of a wine fair, the interviewees rated their perceived wine knowledge modestly. More than 10% of the respondents estimated their knowledge of wine to be very poor and only 6% judged their wine know-how to be very good. The data thereby reflect market research. German wine consumers are reluctant to overestimate ones' wine competence (Hoffmann and Szolnoki, 2011). Also in line with prior research was that the higher level of perceived wine competence and seniority in the study population implied stronger reliance on direct buys from wine producers.

In regards to the research question whether consumers would enjoy being integrated more extensively half of the interviewees expressed such interest. For the online pretest, more than two-thirds of the interviewees communicated interest to be more actively integrated into the processes of a

winery. Female participants expressed higher interest to be actively involved.

As expected, interest to be integrated in downstream winery activities was higher than for upstream value chain steps. More than fifty percent of the interviewed population stated that they would enjoy a more extensive integration in downstream winery activities but 42% of the interviews expressed interest in upstream integration. Against expectations for research question two, upstream integration is not to be ignored. Of the interviewed women 57% declared an interest in downstream prosuming versus 49% of the male population. Also in regards to upstream process integration the proportion of interested women was higher compared to the men population. Downstream involvement received higher attention for the younger generation across all prosuming dimensions. Against expectations, the segment of “over 60” communicated great interest in being integrated on the marketing side. For integration into upstream processes, the population of age “35–49” communicated the highest interest, followed by the generation of under 35. The interviewees with more wine competence opted for more intensive prosuming. For the segment with very high wine competence, 85% communicated interest in downstream marketing integration.

Kendal-Tau and Spearman-Rho correlation analyses identified the variables “wine knowledge” and “downstream integration” to be significant with positive correlation of 0.23 and 0.24 respectively, backed by the results of ANOVA analyses. Diverse regression analyses calculated for all dependent variables (OLS as well binary logistic regression) disclosed limited statistical peculiarities. Only “channel of retail and discount” turned out to be significant for downstream integration. Descriptive and correlation analyses hence support the initial expectation that wine knowledge – more involved consumers in the classical definition – is a driver for integration interest (McCutcheon et al., 2009). In regards to preferences for specific steps of the value chain, more competent wine customers are interested in upstream integration as expected, but they also show high interest in downstream activities. The low confirmatory values can be explained since German wine consumers generally are reluctant to judge their wine knowledge (Hoffmann and Szolnoki, 2011). The dependency of retail channel preference and downstream-prosuming-interest indicates opportunities to address more distant wine consumers via prosuming, at least for marketing based activities. Direct sales of German wine estates to consumers account for about 25% of the sales and are in decline (DWI, 2014). These clients visit wineries, taste wines, and interact with the wineries. Prosuming apparently allows to motivate consumers for interaction with suppliers that so far predominantly sourced in retail outlets. Still, the skewness of the study population towards more involved consumers and a trend towards multichannel supply need to be considered (Dressler, 2015).

Looking at the possible impact of prosuming on business results as addressed by the third research question, 43% of the respondents declared that stronger involvement would increase their loyalty to the winery. More than 40% of the respondents

expressed willingness to pay higher prices in case of active involvement. Additionally, more than half of the interviewed population stated that they would regard prosuming positively even if the resulting co-created products or services deviate from their individual input or their expected results. Male and female respondents did not vary in regards to loyalty or willingness to pay a premium in case of active integration. Interestingly, loyalty impact was expressed highest for the segment by the least competent wine buyers. While seniority increases loyalty, the willingness to pay a premium for co-created products was stated to be higher for the youngest segment. Diverse regression analyses did not disclose significant relationships.

A cluster analysis was performed to identify homogeneous segments. Accounting for the binary and ordinary scaling of the variables a two-step cluster analysis was applied (Mooi and Sarstedt, 2011). Using SPSS, the two-step cluster analysis divided the population into two clusters of almost equal size. The variables showing highest distance between the clusters and hence determining heterogeneity between the clusters are “interest in upstream integration” and “willingness to pay in case of integration” (see Table 1). Cluster one is characterized by dominating interest in active integration. More than 75% of the cluster population expressed interest in upstream integration. About 70% of the cluster predicated willingness to pay a premium as well as to increase loyalty in case of prosuming. For the first two differentiating variables the values for the second cluster equal zero signaling missing interest of that population in upstream-prosuming and no willingness to pay a premium in case of integration. Hence, the second cluster represents a population with low interest in prosuming activities in wine – labeled as “hands off cluster”. Furthermore, the members of the first cluster with high upstream integration interest also stated significantly higher interest in downstream integration in the producers’ activities compared to the “hands off cluster”. The cluster that welcomes prosuming shows a slightly higher wine competence. For the remaining variables the two clusters do not vary.

The analyses disclosed a split of consumers into a group of wine consumers that are prosuming-interested and one being reluctant. Despite a tendency to prefer downstream integration, upstream integration is also in the interest of the prosuming-interested customer groups. Hence, against published

skepticism customer integration in the core of a winery, the winemaking, can attract prosuming-interested clients and offer potential for value creation (Garcia-Granata et al., 2013), not only for wine consumers with extensive knowledge on wine. Indications of positive reaction in regards to loyalty and willingness to pay a premium in case of a more intensive integration signal that activating customers in the world of production offers the potential to increase revenues and to increase loyalty if the right client segments are addressed. It is of interest that wine consumers with lower wine competence, in general representing a challenge for wine estates to be won for wine and to be kept loyal (Hoffmann and Szolnoki, 2012), are represented in the population of the prosuming-interested cluster. The stated high level of willingness to increase loyalty as well as to pay a premium in case of prosuming of the group with lower wine competence in the sample illustrate that prosuming is a promising lever. Neither drinking intensity nor wine knowledge correlate with willingness to pay supporting prior research that engagement does not necessarily allow for price increases (Hussain et al., 2008). Age is also not decisive. Senior customers with interest in prosuming are appealed to apply or expand their wine knowledge in case of integration. Younger customers are attracted in prosuming due to technology affinity (Bruwer and Thach, 2013) and the enjoyment of empowerment (Füller et al., 2009). The expressed willingness of the younger generation to pay a premium for prosuming illustrates opportunities to lock-in young consumers via technology and emotional buying experiences and to realize adequate returns on prosuming-based business models (Pelet and Lecat, 2015). The initial observation of the descriptive analyses of a higher level of interest from women for prosuming was not reinforced by the correlation or cluster analyses feeding to the controversial discussion on eventual gender-based differences (Engelbrecht et al., 2014). The risks to displease clients with prosuming-based offers is limited since even in the case of a deviation from expectations interviewees will value integration and also within the group of prosuming-reluctant consumers positive reactions in case of active engagement were expressed. The “hands off clients”-cluster reveals a risk of overinvestment though and inefficiency when offering costly services to that clientele.

5. Managerial implications and limitations of the study

Wine customers increasingly access and use different channels jeopardizing customer loyalty for the direct to consumer business of wine estates (Engelhard, 2011). Offers with more active customer involvement can help to counteract diminishing loyalty (Bruwer and Thach, 2013). Prosuming allows wineries to reach new clients, create opportunities for price premiums, and increase loyalty, even for customer groups that are challenging and usually more price sensitive. Despite a general openness and curiosity of wine consumers in regards to prosuming, the interviews revealed no enthusiasm for active integration into supplier processes. Indeed, the analyses disclosed a segment of clients with low and limited involvement interest. Demographic characteristics are not the

Table 1
Two-step cluster analysis – results.

Cluster	“Prosumer cluster”	“Hands-off cluster”
<i>n</i> = 231	126 (54.5%)	105 (45.5%)
Variables		
Upstream integration interest	0.77	0
Willingness to pay	0.7	0.07
Loyalty	0.65	0.16
Downstream integration interest	0.66	0.35
Wine knowledge	2.44	2.3
Gender encoded	1.57	1.61
Age encoded	2.15	2.1

dominant factor determining an inclination for prosuming. The study revealed that it is of paramount importance to identify prosuming interest of the wine customers prior to a business model redesign for prosuming. Entrepreneurs therefore need to reflect on their client portfolio when designing integrative interaction. Winning the younger generation via prosuming opens the opportunity for higher rewards as indicated by the expressed willingness to pay a premium. This observation is of practical relevance since younger German wine consumers are generally characterized by lower perceived knowledge, interest, and involvement in wine (Pelet and Lecat, 2015; Szolnoki and Hoffman, 2014) and represent a challenge for producers to win and to keep in their realm (Pelet and Lecat, 2015).

Prosuming-interest turned out to be the differentiating variable and therefore encompass attitudinal, behavioral, and preferential characteristics. Prosuming-interest can hence be used to segment consumers. More interested clients can be won by attractive offers of extensive integration and the higher loyalty and willingness-to-pay as well indicate potential return (Michaelidou and Dibb, 2008). Gender-based preferences can be considered in the design of co-creation and its marketing but are not cluster determinants. Wineries are well advised to create prosuming offers starting with downstream integration to then eventually expand to upstream processes. A two-step offer extension helps to safeguard resources and to identify the customer segments to be targeted. Furthermore, costs of possible integration need to be considered. While an online voting for labels using an interactive webpage can be realized with limited resources, a full-fledged co-creation of a wine requires far more attention and efforts.

Limitations of this research, among others, are the restricted regional scope, the exploratory approach, and the sampling method. The findings are neither representative in quantitative terms nor do they represent the average German population. The explorative nature with a reliance on categorical data needs to be considered in the data interpretation. The selection of the research participants – at either a wine fair or from the customer portfolio of a winery – surely skewed to more involved wine consumers. Without ignoring these biases the explorative aim of the study and the resulting findings are of value for practitioners as well as scientists reminding of the ambition to contribute to grounded theory (Corbin and Strauss, 1990; Suddaby, 2006). Future research is proposed to examine prosuming activities and causal pricing opportunities through a larger sample and broader questioning. Furthermore, the costs of prosuming-based business models need to be considered to assess profitability impacts.

6. Conclusion

Prosuming as a phenomenon of extended integration of customers into the processes of the producers is intensively discussed in the literature and obvious in today's life. Prosuming is also gaining ground in the wine industry with vivid examples of client activation for all steps of wine estates' value chain. A study of wine consumers on their interest in prosuming in wine disclosed two clusters of almost equal size

dividing the wine consumers into prosuming-interested versus prosuming-reluctant consumers. Against literature based expectations the descriptive, correlation, and cluster analyses provided evidence that prosuming interest is neither obvious nor is the target group easily identified. Winery managers, though, need to be attentive to the expectations of the clients to avoid a misallocation of resources or overinvestment. Prosuming can help to nurture loyalty of the established client based. Since the prosuming-interested segment also encompasses younger, less wine experienced, and so far retail reliant consumers, new client relationships can be built and loyalty as well as pricing opportunities can be exploited. Entrepreneurs offering creative prosuming can thereby profit from profiling in the competitive wine market, but prosuming needs to overcome the current product centrism and go beyond storytelling to generate value for both sides, the client and the producer.

Questionnaire - Prosuming interest in wine

Introductory comments on "prosuming" and illustration by general examples (shopping, traveling e.t.c.)

Structured questionnaire filled interactively with the interviewee:

1. Do you consume wine? ☐ Yes ☐ No
2. Gender: ☐ female ☐ male
3. Age (years): ☐ less than 35 ☐ 35 to 49 ☐ 50 to 59 ☐ 60 or older
4. You judge your wine knowledge to be ...? ☐ very weak ☐ weak ☐ strong ☐ very strong
5. Where do you buy your wine? ☐ specialist store ☐ winery ☐ retail/discounter ☐ online
6. How frequently do you consume wine? ☐ several times a week ☐ once a week ☐ once a month ☐ a couple of times a year
7. For which occasions do you drink wine? ☐ suiting meals ☐ for a special occasion ☐ to embellish the day

Prosuming discussion alongside value chain – use of the according figure!

8. Would you be interested to be involved in the upstream processes of a winery? ☐ yes ☐ no
9. Would you be interested to be involved in the downstream processes of a winery? ☐ yes ☐ no
10. Would you be more loyal to a winery if you are actively integrated in their processes? ☐ yes ☐ no
11. Would you be willing to pay higher prices for a wine in case of active contribution? ☐ yes ☐ no
12. What is your expected reaction if the results of the co-produced activity deviate from your expectations? ☐ positive ☐ regret being integrated

THANK YOU ...for participating in this survey!

App. 1: Questionnaire

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