# Social media as a strategic marketing tool in the Sicilian wine industry: Evidence from Facebook

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## Abstract

Over the last few years, many companies have integrated social media, and social networking sites in particular, into their communication and media plan, leading to a deep transformation of the organizational models and changing the companies' marketing dynamics. This study has dual aims: first, to recognize and validate the firm's social media (SM) efforts in its use of the Facebook platform; second, to examine the relationships among the firm's SM efforts and some firm and managerial characteristics. In order to achieve these research aims, data on 45 wineries were collected and analysed, using a model that considers three different dimensions of the firms' activity on the social platform. The results show that mainly small firms, in physical and economic terms, led by managers with a higher educational level, have become more involved in SM as shown by high values of intensity, richness, and responsiveness. On the contrary, large companies' social-media efforts have been more modest. The results of this study need to be interpreted within the context for which our research was designed. Findings have some theoretical and practical implications.
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*Keywords:* Firms' social media efforts; Facebook; Wine industry; Italy

## 1. Introduction

In recent years, the rapid spread of social media (SM) and their application to the field of marketing have had a significant impact on business structures, leading to a deep transformation of the organizational models and changing the companies' marketing dynamics (Wu, 2016; Kim et al., 2015). Kaplan and Haenlein (2010, p. 61) define SM as 'a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user-generated content'. Indeed, through SM channels, interactions between individuals or among individuals and organizations are facilitated and disseminated (Berthon et al., 2012).

More and more firms today adopt SM as a communication tool in order to both conduct their marketing efforts and to extend their traditional marketing (Dahnil et al., 2014; Oztamur and Karakadilar, 2014). In particular, as shown by Trainor (2012), they are seen as key tools for creating and maintaining customer connections, and for this reason they have become an important instrument of customer relationship management (Karjaluoto et al., 2015, p. 3). Use of SM in marketing strategies, as claimed by Paniagua and Sapena (2014), is only innovative in its means, not in its goals, which are to increase sales and enhance the firm's reputation.

As noted by Berthon et al. (2005) the firms utilize SM in three ways. A first approach is traditional and structured, in which SM platforms are considered as traditional marketing channels and in which economic return on investment (ROI) is the firm's main objective. A second approach is traditional-experimental, where purely economic aspects are also associated with social interactions (social-ROI). And in a third, experimental approach, the firm integrates a human voice into the

social-media platform, aiming to affect consumer impressions of the organization or its brands (Dijkmans et al., 2015).

Kaplan and Haenlein (2010), on the basis of media research (social presence and media richness) and social processes (self-presentation and self-disclosure), classify SM according to six categories: blogs, social networking sites, virtual social worlds, collaborative projects, content communities, and virtual game worlds. Among these SM channels, social networking sites (SNS) are applications that allow users to create profiles, through which they can connect with other users, exchange personal information, send messages, invite friends and colleagues to events, and share knowledge and information. Many companies in recent years, recognizing the growing number of recorded users of SNS, have integrated SNS into their marketing plans; in doing so they exploit an opportunity to contact end-users in a timely and direct way, at a relatively lower cost and higher level of efficiency than can be achieved with more traditional communication and marketing tools (Kaplan and Haenlein, 2010). More specifically, in facilitating and enhancing interpersonal relationships through the exchange of information on products and services, firms gain an ability to forecast consumer purchasing behaviour, increase brand awareness, increase sales, and build consumer loyalty (Mozas-Moral et al., 2016; Bianchi and Andrew, 2015; Dehghani and Tumer, 2015; Castronovo and Huang, 2012). In fact, through SNS, firms can obtain valuable information about people, including their preferences, social influence, and types of social interactions (Schniederjans et al., 2013).

Facebook, as the most established online social network, registered in the first quarter of 2016 more than 1.6 billion active users (Facebook, 2016), which represents an average annual increase in users of 194.3% since 2008. This confirms Facebook as the biggest social networking platform in the world, followed by Qzone (predominant in China) and Instagram (Cosenza, 2015). The Facebook platform enables the exchange of information quickly, flexibly, and easily (Mozas-Moral et al., 2016). Today, firms are willing to spend a reasonable part of their budgets to reach potential customers through advertising on Facebook (Falls, 2009). This is confirmed by Facebook advertising revenue, which, according to Facebook's 2016 Annual Report, was $17,928 million in 2015 compared to $1974 million in 2010—a 134.7% year-over-year increase (Facebook, 2016). Dehghani and Tumer (2015) have noted that advertising on Facebook significantly affects brand image and brand equity, two factors that contribute to consumer buying intentions.

SM and SNS in particular have major implications especially for firms that offer products such as wine, which are reliant on a high level of reputational credibility among potential consumers, and for which searching for information is part of the consumption experience (Capitello et al., 2014, p. 129). With specific reference to the global wine industry, Cipolla (2013) has noted different dynamics between relatively newer and older wine-producing countries. In the US, 94.0% of wine producers have a Facebook page, while in the traditional producing countries, such as France, the proportion is as low as 53.0%.

Given this background, the aim of this study is twofold. First, we estimate firms' social-media efforts on the Facebook platform using the model proposed by Chung et al. (2014), which considers three different dimensions: intensity, richness, and responsiveness. Second, we analyse the relationships among firms' SM efforts and some firm and managerial characteristics. To achieve this aim, the study is focused on a sample of 45 wineries operating in Sicily, the third Italian winemaking region, where 2014 productivity stood at roughly 4.5 million hectoliters (ISTAT, 2016), and which includes a high level of territorial specificity (as much as 70.1% of total wine production has a designation of origin). The Sicilian success with wine production is due to the fact that numerous wineries have recently implemented modernisation processes and are paying increased attention to improving product quality, packaging, and marketing (Giacomarra et al., 2016; Galati et al., 2015a).

The paper is organized as follows. A literature review on the main factors affecting the adoption of SM strategies, and the models adopted in order to measure firms' SM efforts, is presented in Section 2. Section 3 summarizes the methodological approach used. Results are presented and discussed in Section 4. Section 5 contains final considerations and some concluding remarks.

## 2. Literature review

Many studies show that firms' adoption of marketing strategies based on SM have a positive impact related to direct interaction with consumers; the strategies allow the firms, based on consumer feedback, to acquire marketing information and to learn about current performance and predict future performance (Kim et al., 2015; Gelb and Sundaram, 2002). In this regard, Paniagua and Sapena (2014) identify four channels through which SM affects the firm's performance: the relationship between firms and society (social capital), knowledge of consumer preferences (revealed preferences), transformation of social-marketing resources into financial performance capabilities (social marketing), and conversion of social corporate resources into operational performance capabilities (corporate social networking).

Recent studies show, on the one hand, that there has been real difficulty in determining the effectiveness of investments in SM, assessed in terms of return on investment and return on sales (Wu, 2016; Kim et al., 2015; Chung et al., 2014; Kumar and Mirchandani, 2012), due to the complexity of distinguishing customers from online community members (Ang, 2011). On the other hand, studies have shown there are many firms that have incorporated SM strategies in an integrated communication and media plan (Kaplan and Haenlein, 2010) by changing the way of doing business. Companies use SM platforms, such as Facebook, in order to increase brand awareness and enlist people's participation through online comments, posts, and other types of engagement (Wallace et al., 2014). In particular, for products such as wine, the interaction between wine producers and consumers, or among consumers themselves, helps to orient consumer behaviour. As suggested by Leigon (2011), SM helps

to advance wine sales due to SM platforms' ability to spread wine consumers' opinions to others; Wilson and Quinton (2012) add also that SM platforms allow consumers to exchange information and encourage others to try different wines.

Bughin et al. (2011) show that companies incorporate SNS in their promotional plans in order to reduce internal communication and marketing costs, as well as to improve the efficiency of their communication processes with external parties, thereby helping to decrease transaction costs (information, negotiation, and monitoring costs), which are not negligible components of total company costs (Galati et al., 2015b).

The spread of SM and SNS, in particular, has affected both large organizations and small- and medium-sized enterprises. The latter are often characterized by a marked reluctance toward the adoption of new technologies and modern communication channels (Dahnil et al., 2014; Kaplan and Haenlein, 2010). Nevertheless, as shown by some authors, SM strategies are the most suitable tools for small and medium enterprises; although such firms are characterized by limited budgets and low expertise, they can, thanks to their greater flexibility, compete with larger companies (Adegbuyi et al., 2015; Pentina et al., 2012). Social media, in fact, provide inexpensive promotional options with relatively low cost, compared to the costs necessary for communication in non-virtual media (Broekemier et al., 2015; Dehghani and Tumer, 2015).

As noted in many studies, firms' adoption of modern digital technologies and of new and innovative tools, such as SM, which enhance their interaction with customers, is affected by firms' managerial characteristics (Galati et al., 2016). Gender, age, and educational level are considered the key factors that can influence managers' openness and receptivity to adopt modern technologies in their organizations. Palvia and Palvia (1999) note that the adoption of e-business is affected by owners' age, gender, education level, and computing/Internet skills. With specific reference to SM adoption, Vlachvei and Notta (2014) and Fosso and Carter (2014) note that younger managers are more likely to adopt SM tools, and managers or owners with a higher level of education have the ability to create a favourable atmosphere for the adoption and implementation of innovative tools.

Although numerous firms adopt SNS, only a small portion of these is able to exploit the potential that these tools can offer (Chui et al., 2012); the probable reason for this lack of success, as noted by Hanna et al. (2011), is their failure to identify the indicators that can measure their efforts.

In the economic literature, very few empirical models have been proposed for measuring a firm's social media efforts. Some studies are limited to assessing firms' SM efforts (Vlachvei and Notta, 2015; Öztamur and Karakadılar, 2014); others use this measure to evaluate the impact of firms' SM activity on financial performance and brand reputation (Hong et al., 2016; Chung et al., 2014), or to assess the ROI of the SM marketing (Hoffman and Fodor, 2010). In these studies, the firms' engagement is assessed in terms of the number of likes or fans that, as noted by Paniagua and Sapena (2014),

positively influence the firms' share value, but also taking into consideration the number of comments and posts, the richness and quality of the content (photos, video, links), and the frequency of updates, which are important aspects to attract target customers' attention (Hong et al., 2016; Moro et al., 2016; Karjaluoto et al., 2015; Chung et al., 2014; Öztamur and Karakadılar, 2014). Chung et al. (2014) conceptualize firms' SM efforts by taking into consideration three dimensions—intensity, richness, and responsiveness—which identify the use of SN both in quantitative and qualitative terms. This approach has been adopted by Vlachvei and Notta (2015) in their study on Greek food manufacturing firms.

Findings from these studies show that there is a positive correlation between the number of people talking about a company on Facebook and the firm's net revenue and number of personnel, indicating that people are talking more about those companies that are larger and more profitable (Karjaluoto et al., 2015). Similar results were obtained by Chung et al. (2014), according to which, in qualitative terms, social media activity on Facebook by South Korean companies was positively and significantly associated with an increase in firm performance measured by financial returns. However, as noted by Öztamur and Karakadılar (2014), metrics such as the number of page views, visitors, friends, or followers do not automatically translate to higher conversions, orders, or sales. These authors, comparing the SM activities of US and Turkish companies on Facebook and Twitter, suggest that in order to attract customers' attention, Small and Medium Enterprises (SMEs) must spend time to create rich content on their SM channels.

Based on the above discussion, this study explores the following hypotheses in regard to the Sicilian wine producers under investigation:

**H1.** Small firms are more engaged in SM activity than are large firms.

**H2.** Firms managed by owners/managers with a high educational level are more engaged in SM activity.

**H3.** Firms managed by younger owners/managers are more engaged in SM activity.

## 3. Methodological approach

In order to assess firms' SM efforts, with specific reference to the Facebook platform, we adopted the model proposed by Chung et al. (2014) and applied by Vlachvei and Notta (2015), which identified three different dimensions of firms' engagement in SM: intensity, richness, and responsiveness.

In particular, intensity is a quantitative measure that characterizes Facebook activity, and is obtained by dividing the number of posts and comments on a firm's Facebook page with the number of fans of that page (in order to take account of the network size). A higher volume of posts and comments could represent a greater opportunity, not only for improving users' awareness and engagement with firms, but also for influencing the firm's market value (Vlachvei and Notta, 2015;

Chung et al., 2014). The second dimension, richness, which expresses qualitatively the posts made by firms and thus also the quality of their SM activities, is determined by the ratio of the number of posts containing videos, photos, or links and the total number of posts. The literature suggests that messages including texts, pictures, or videos have a different ability to deliver information (Daft and Lengel, 1986). In particular, this ability is greater in messages containing pictures than messages that contain only text because they require less processing effort (Larkin and Simon, 1987). Additionally, messages containing videos are easier to understand and more information-rich than messages containing static pictures (Park and Hopkins, 1992). As suggested by Emerson (2012), in moving from text-only messages to those that contain pictures and video, more information can be communicated, and they are more likely to be noticed and shared by consumers, because they are more engaging and informative. Finally, the third dimension of SM efforts is responsiveness, which qualitatively measures the degree of interaction between firms and consumers; it is obtained by dividing the number of comments made by firms by the total number of comments (both businesses and users). The greater the value of responsiveness, or interactivity, the deeper the exchange of information between firms and users, which is fundamental for firms' survival and for the building of social capital on the social media sites (York, 2012).

The analysis of Facebook pages, necessary to evaluate the SM efforts, was carried out starting from a list of 208 wineries operating in Sicily provided by the Sicilian Regional Department of Agriculture. The list was reviewed and corrected to eliminate wineries that have ceased their activities and to insert new wineries that have launched since the government list was compiled.

To acquire the information necessary for calculations, Next Analytics software (nextanalytics.com) was used to review the one-year period from June 2015 to June 2016. This software reports on the number of likes, posts, shares, reactions, links, photos, videos, and comments for each Facebook page, whether the actions are taken by owners or users. Next Analytics reported data from 100 wineries; data from 56 wineries could not be processed, and an additional 52 wineries do not host a Facebook page. The 100 wineries with available SN data were contacted via e-mail or phone in order to solicit their response to a questionnaire aimed at gathering information on the wineries and their managers. A total of 45 valid questionnaires were obtained (registering a response rate of 45.0%); these wineries represent the study sample.

With the aim of grouping the wineries into homogeneous categories on the basis of their engagement in SM activities, we performed a hierarchical cluster analysis using SPSS software version 21. Among the clustering criteria, Ward's method was used both to minimize the intra-cluster distance and maximize inter-cluster distance, taking into consideration the need to obtain a similar number of observations in each cluster, with no outliers present among the variables included in the model. Distance between clusters was measured using the squared Euclidean distance. Statistical and conceptual criteria were used to select the most appropriate number of clusters. Following a dendrogram analysis, which allowed the wineries to be grouped into clusters, we performed three iterations of Ward's method with the number of clusters set at two, three, and four. Finally, we proceeded to identify the clusters and provide simple interpretations of the organizational models.

## 4. Results and discussion

### 4.1. Wineries' Facebook activity

Table 1 briefly presents data on the wineries' Facebook activity between June 2015 and June 2016. In particular, the number of posts per day reached a maximum value of 1.485 with an average value of 0.244. Posts received an average of 22.850 likes (with a minimum value less than the unity and a maximum value of approximately 135) and 2 comments (the number of comments per post varied from 1 to 7). Finally, the wineries were followed, on average, by 3690 Facebook users; this reflected a range of just over 150 fans to more than 46,000 fans.

As indicated by the literature, the degree of rich content in posts and messages plays an important role in helping firms to attract potential customers and to retain existing ones. Table 2 summarizes the nature of the posts published by the wineries on Facebook. As shown, the firms in the sample preferred to transfer information to their users primarily through the use of photos, as on average there were 0.688 photos for each post (ranging from 0.364 to 1.000). Links to additional information were present in 17.6% of the posts. In only 3.8% of cases did firms post videos to their Facebook feeds.

As shown in Table 3, the values for intensity were very low (0.145 on average). Conversely, the richness dimension assumed a higher average value: more than 90.0% of posts contained information enhanced by photos. Finally, the dimension of responsiveness stood on average at a fairly high value: more than 61.0% of the total posts provided on Facebook pages came from the same winery. As highlighted by some authors, the

Table 1
Descriptive data of Facebook effort for Sicilian wine cellars.
*Source*: Our elaboration on collected data.

|  | **Average** | **Min** | **Max** | **Standard deviation** |
| --- | --- | --- | --- | --- |
| Posts/day | 0.244 | 0.003 | 1.485 | 0.277 |
| Likes/post | 22.850 | 0.968 | 134.753 | 27.142 |
| Comments/post | 2.075 | 1.054 | 7.000 | 1.411 |
| Shares/post | 4.689 | 0.227 | 19.227 | 4.472 |
| Number of fans | 3690.067 | 154.000 | 46,053.000 | 7832.578 |

Table 2
Nature of post.
*Source*: Our elaboration on collected data.

|  | **Average** | **Min** | **Max** | **Standard deviation** |
| --- | --- | --- | --- | --- |
| Photos/post | 0.688 | 0.364 | 1.000 | 0.170 |
| Videos/post | 0.038 | 0.000 | 0.429 | 0.067 |
| Links/post | 0.176 | 0.000 | 0.487 | 0.139 |

Table 3
Measure of Facebook effort of Sicilian wine cellars.
*Source*: Our elaboration on collected data.

|                | Average | Min   | Max   | Standard deviation |
|----------------|---------|-------|-------|--------------------|
| Intensity      | 0.145   | 0.004 | 0.413 | 0.110              |
| Richness       | 0.903   | 0.455 | 1.000 | 0.115              |
| Responsiveness | 0.613   | 0.143 | 0.941 | 0.212              |

exchange of information between firms and consumers, in addition to the firms' social presence itself, contributes to building loyalty and brand awareness, and influences market performance (Mozas-Moral et al., 2016; Bianchi and Andrew, 2015).

## 4.2. Cluster analysis

Fig. 1 illustrates the cluster analysis results, showing the values of the squared Euclidean distance in the abscissa and the identification number of each wineries grouped according to Ward's linkage method in ordinate. Each cluster includes, respectively, 15, 2, 12, and 16 wineries. In order to decide the number of cluster components, in addition to the dendrogram examination, screen plot, and the VRC using the ANOVA procedure for each of three segment solutions, we performed a two-step cluster analysis, using the same variables and specifying the most probable solution in terms of the number of clusters. The output suggested a solution of four clusters. Furthermore, in order to assess the solution's stability, we reperformed the analysis using different clustering procedures, algorithms, and distance measures, as well as changing the ordering of objects in the dataset. The four clusters show, for each variable, the average values reported in Table 4.

Analysis of variance between and within clusters, the result of the Fisher test ($F$) and the model significance, are shown in Table 5. The results show that the four clusters are statistically different and that all variables are significant at the 99% level. Furthermore, as can be seen, the responsiveness variable is the most influential variable in the profile of the cluster ($F = 78.963$), while intensity is the SM dimension with the least influence ($F = 6.518$).

## 4.3. Cluster descriptions

The first cluster consists of 15 wineries characterized, compared to other clusters, by a low value for intensity (0.102) and responsiveness (0.386), and showing, consequently, a limited SM effort and poor interaction with users. In contrast, they are characterized by a high value for richness (0.921), thanks to the high number of multimedia posts published on Facebook. These are the largest companies in physical terms, as they represent the highest average number of fixed employees (7.6) and the second highest average annual sales volume (€1.2 million). This result is at odds with what was found by Karjaluoto et al. (2015), according to which a high involvement of users is positively correlated with the firm's physical size in terms of number of employees. In particular, these wineries allocate, compared with other firms, the highest share of their turnover for promotional activities through traditional marketing channels (8.5% of annual turnover), by participating more frequently in international wine exhibitions.

Less representative is the second cluster, comprising only two wineries. These show lower values for intensity and richness (0.006 and 0.477, respectively). Compared to other clusters, these are firms that show the highest annual sales by unit (averaging 955,000 bottles) and value (€3.1 million), as well as the highest number of graduates among their personnel (employees and marketing and sales managers). Managers who lead these wineries are on average younger and less experienced in the sector. This result is a rejection of our third hypothesis, according to which younger managers are more likely to adopt social media tools than are older managers.

Cluster 3 has the highest values for intensity (0.238), richness (0.938), and responsiveness (0.866), showing a high effort in promotion and communication through Facebook channel and in particular on the Facebook platform. This cluster includes mainly small wineries, both in physical terms (2.3 permanent employees on average and 111,800 bottles commercialized annually) and in economic terms (average annual sales of €1.0 million). In this sense, the results align with the findings of other investigators, according to which small firms, having limited capital but high flexibility, use SM with a higher frequency, being a relatively low-cost tool (Adegbuyi et al., 2015; Pentina et al., 2012; Bughin et al., 2011; Kaplan and Haenlein, 2010). In addition, it was noted that for the firms in this cluster, even though they devote a large share of their turnover to marketing activities, compared to other wineries, they have the lowest participation in international wine fairs. This result, in part, could be justified by the ability of these companies to overcome, through SM activities, spatio-temporal limits and financial costs that characterize traditional means of communication (Galati et al., 2016). The results confirm our first hypothesis, according to which small businesses, having limited budgets, are more involved in SM activities, as they constitute an essential tool for improving customer loyalty and reaching new clients.

Finally, the fourth cluster, compared to other clusters, shows medium to high values for intensity (0.134), richness (0.913), and responsiveness (0.662). Wineries in this group have been involved in the wine industry for the longest time (43 years on average) and are managed by entrepreneurs who have the longest experience in the industry (25 years on average), which presents the highest level of education and greatest knowledge of foreign languages. This result partially confirms our second hypothesis, according to which firms run by entrepreneurs with a high level of education in the wine sector will show a high SM effort. Similarly, previous empirical evidence confirms the influence of entrepreneurial competencies on e-business and SM adoption (Galati et al., 2016; Vlachvei and Notta, 2014). The same cluster presents the companies that, compared to the other clusters, have the third lowest value, both by bottles commercialized and by sales, and that allocate a smaller share of turnover to promotion and marketing expenses.
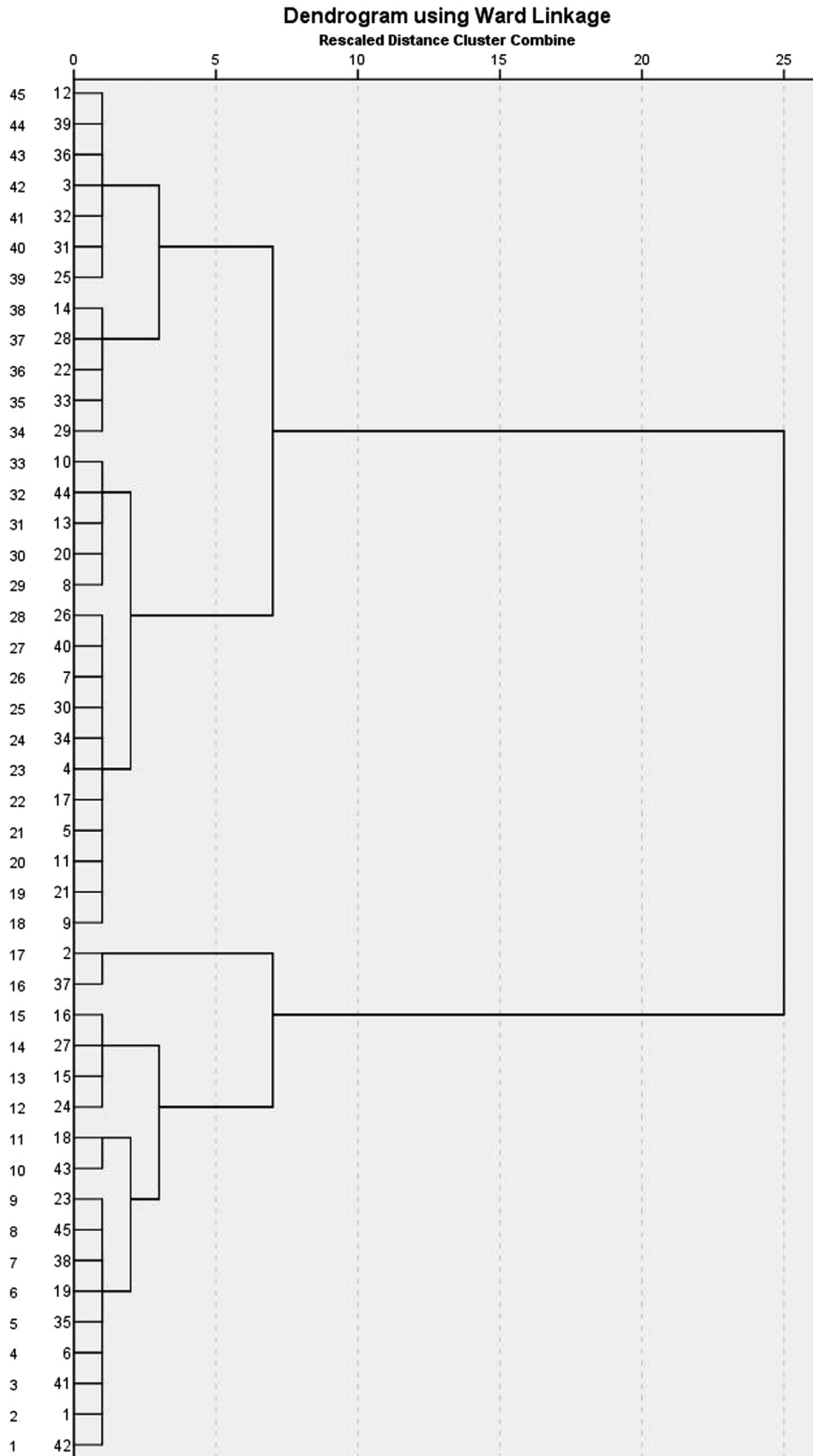
Fig. 1. Results of hierarchical cluster analysis.

Table 4
The cluster obtained and average values of variables.

| Cluster | No. of cases | Intensity | Richness | Responsiveness |
|---------|-------------|-----------|----------|----------------|
| 1 | 15 | 0.102 | 0.921 | 0.386 |
| 2 | 2 | 0.006 | 0.477 | 0.389 |
| 3 | 12 | 0.238 | 0.938 | 0.866 |
| 4 | 16 | 0.134 | 0.913 | 0.662 |

Table 5
Analysis of variance (ANOVA) among and within clusters.

| | Cluster | | Error | | $F$ | Sig. |
|---|---------|-----|-------|-----|-----|------|
| | Mean square between groups | d$f$ | Mean square within groups | d$f$ | | |
| Intensity | 0.057 | 3 | 0.009 | 41 | 6.518 | 0.001 |
| Richness | 0.128 | 3 | 0.005 | 41 | 25.855 | 0.000 |
| Responsiveness | 0.560 | 3 | 0.007 | 41 | 78.963 | 0.000 |

## 5. Conclusions

With 1.6 billion global users, of which 28 million are in Italy, Facebook is not only the most popular social networking site worldwide, but also the one that attracts the most substantial investment by companies, which, increasingly, recognizing its great potential, have integrated it in their communication and media plans.

This study, using a model proposed by Chung et al. (2014), analysed the Facebook activities of a sample of Sicilian wineries and explored the relationships between these engagement activities and some primary features of the firms and their entrepreneurs. Results show limited SM activity by Sicilian wineries, although Facebook postings exhibited a high level of rich content, especially of photos, and good interaction with users. It is mainly small firms, in physical and economic terms, that have become more involved in SM as shown by high values for intensity, richness, and responsiveness. The low cost of this communication tool, compared to those that are non-virtual, allows for its adoption and representation as a strategic channel. In contrast, large companies showed a more modest effort in social media. The latter, in fact, invested greater financial resources in traditional marketing tools, communication, and promotional activities, including participation in international events. Moreover, it appears that the wineries more engaged in SM were those run by managers with a high level of education, probably because such managers had increased awareness of the benefits associated with the integration of SM in their marketing plans, while, in contrast, wineries that were less engaged in SM were managed by younger managers, even though younger individuals are generally more likely than older individuals to use Internet-based innovations.

This study has both theoretical and managerial implications. From a theoretical point of view, our study, in addition to validating the model proposed by Chung et al. (2014), helps to bridge the gap related to the limited number of studies that use models to measure companies' SM efforts. From a managerial perspective, the proposed instrument represents, for companies operating in the wine industry as well as in other sectors of activity, a useful tool for measuring their SM efforts, thus providing the ability to compare themselves with key competitors. In particular, in light of the results, there is clearly a need for individuals with specific social-media management expertise to create and maintain reports on their firms' use of these platforms. In this sense, it is crucial to focus on the quality of the content of messages and posts, the style of writing (which must be friendly), and the timeliness of information exchange—all factors that can increase consumer awareness and brand loyalty, with the opportunity to increase sales.

This study is limited by the small number of wineries involved in the analysis and the period of data analysis considered. With reference to this last aspect, data are subject to sudden changes, which could lead to different future results. Furthermore, one unaddressed issue is managers' perceptions of the effectiveness of SNS for business performance. In order to deeply investigate wineries' social media efforts, future research could incorporate important information such as firms' investment in social network activity (in economic terms, time, or use of qualified staff), the level of satisfaction in terms of revenue, visibility, or reputation generated through the use of Facebook, and the main determinants and motivational factors affecting the adoption of such tools in their business models.

## Conflict of interest

None.

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