

## **E-wine: criticism and resources. A comparative analysis**

by Paola Scorrano\*

### **Abstract**

The phenomenon of high land parcelling visible in the Italian wine sector (that obviously reflects, as well, on the ability of the companies themselves to ‘communicate’ their supply and subsequently make it available on the market) as well as the tendential reduction in wine consumption, that is characterising the traditional leader countries of its production, especially Italy and France, are causing companies in this area that are already ‘weak’ due to their ‘small’ size, to look for more land space in zones that have not traditionally been involved in wine production but in which an increase in the demand of this product is occurring.

It thus seems inevitable for the companies in this sector, in particular for the small ones, to turn to a new channel of distribution, that of e-commerce, which can potentially combine both the needs of acquiring visibility in international markets and a reduction in expense.

The search for visibility of a brand on the web, instead, causes high degrees of complexity from the growing variety and variability of the e-commerce phenomenon. The reduction of complexity of the *e-wine* phenomenon from the consumer’s point of view and the satisfying of information needs as well, prior to purchase characterise the category of ‘connoisseur products’ to which wine belongs (Mattiacci and Ceccotti and De Martino, 2006), can be pursued through the careful management of the virtual store (Internet site). In this study, using the model known in literature as *2QCV2Q* (Mich and Franch, 2000) which has been suitably adapted to the sector under examination, we have tried to provide an “evaluation” of some *e-wines* websites in order to establish their “theoretical selling potential”.

### **1. Main features of the wine sector**

The global wine market shows growing degrees of complexity<sup>1</sup> coming from the greater variety and the variability characterising the sector both for demand and supply. In regard to demand, the variety attribute is qualifiable with the total number of world wine consumers, their geographical origin and their purchasing needs (distribution channels used) and consumption (frequency of wine use<sup>2</sup>, quantity drunk). The variability can be qualified, instead, by the probability of change of the above-mentioned purchasing patterns (emerging from new distribution channels) and habits of consumption as well as by the variation in numbers of consumers and the emerging of new market outlets. As to supply, variety is related to the number of producers, to their geographic origin, to their size, to the typology of relations they establish on a horizontal and vertical level (especially at the basis: directly with consumers or with the commercial brokers) in order to make their product available on the market. Variability is represented by the probability of change in time of the aforementioned variety elements.

In particular, nowadays in the wine sector we notice:

- regards demand; a geographic redistribution with the reduction of wine consumption in traditional producer countries (Italy, France, Spain, Portugal) and an increase of demand in countries such as United Kingdom and Japan traditionally non-producers but also non-consumers. We also notice, moreover, the emergence of new consumer needs, especially in countries where the trend in consumption is decreasing. The demand has become harder to satisfy and a great attention is given (especially for on-line purchasing) to the geographic origin, to the producer’s information and to the guarantee brands (DOC, DOCG e IGT) (Nomisma, 2001);

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<sup>1</sup> On the concept of complexity see: Golinelli, G.M. (2000). *L’approccio sistemico al governo dell’impresa*. vol. I, Padova: Cedam, pag. 127.

<sup>2</sup> Among the wine consumers we can distinguish the drinkers with a ‘functionalist’ drinking approach, the tasters with a more aedonistic approach.

- in regard to supply worldwide there is a concentration in the sector of a few of the bigger players providing a more commercial wine. They are also able to control the market from the point of view of distribution and finding in their leadership of economisation the winning competitive strategy. Along with the big players in the world market there is also a great number of small companies producing wines of excellence, but that often meet with difficulties in distribution. The range of supply is characterised by the presence of new entrant companies coming from “new producer” countries (ostensibly Australia and Chile) making a considerable contribution to international wine commerce.

- as for distribution, it can be observed that the leading channels of wine sales (top of the list GDO conveying 56,58 % of wine sales in Italy), as a consequence of changed purchasing and consumer habits, are supported by HO.RE.CA channel and others (such as, for example, wine bars).

In this context Italy appears as one of the biggest world wine producers<sup>3</sup>, characterised as already stated, by a highly fragmented production<sup>4</sup>. The drop in Italian wine consumption has caused producers to seek, with increasing frequency, an outlet in the more and more complex international markets. This is a result of the high degree of variability of their competitive dynamics due to the introduction of new competitors and to the necessity to satisfy constantly changing consumer needs. The difficulty in running economically advantageous business on the international markets derives also from the small size of Italian companies that, in providing quantitative, unpretentious products, even given a wide range, often meet with financial obstacles in placing their products on the market. The resolution of the trade-off between rationalisation of marketing costs and visibility on the world markets especially by small companies can take advantage of the online channel in order to reach the greater, international audience. Obviously, the entrepreneur who also decides to use the web to provide his own product range on the market must be prepared to face and solve some obstacles (especially from a logistic and organizational point of view) that through the online channel can widen their market penetration. Moreover, the achievement of visibility is influenced by the degree of traceability of the website; an aspect of basic importance because of the high birth-death rate of websites.

## 2. E-wine opportunities and bounds

The competitive dynamics of the Web, since its birth, have shown emphasized variety and variability, characteristic for rapid succession, have become over the years, distinctive elements peculiar to this new business model.

It has been useful to examine the basic aspects of ‘e-commerce in wine sector’ or the ‘e-wine’ phenomenon, assuming as variety elements:

- the agents of the Network: the companies on the Web are divided into *pure players*, if they operate only in the virtual market, and *clicks and mortar*, if, instead, they practise their activity of wine marketing in the real market and in the virtual one at the same time. In Italy there are more than 2500 sites concerned with wine products<sup>5</sup>; 5% of companies in this sector practise e-commerce and what can be pointed out is that their value in 2007 has doubled as compared to the previous year, a trend especially concerning small companies when compared to the companies with a well-known brand;
- the type of logistic relation established: two e-commerce typologies can be construed (Grando, 2000):

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<sup>3</sup> In 2005 Italy has awarded the second place for the production of wine (in quantity) with 16,22% of world production; France occupied the first place with 19,65%. Unioncamere (2007). Rapporto sul Settore Vitivinicolo.

<sup>4</sup> In 2005 the Italian wine companies with a turnover higher than 5 millions euro were 177 and that today the three greatest producers, Gruppo Caviro, Coltiva and Gruppo Italiano Vini, concentrate just 16,1% of value market. See the insert *Mercato & Imprese 2007* of the magazine *Largo Consumo*.

<sup>5</sup> Taken from [www.winenews.it](http://www.winenews.it)

- the *buy hold sell* formula, in which the virtual distributor runs a real wine-shop as he acquires the ownership of wine before receiving the online purchasing order by the customer<sup>6</sup>;
- the *sell source ship*, in which the virtual distributor only manages the flow of information, i.e. it puts in contact the wine producer and the virtual purchaser without attending to the problems related to the physical transfer of goods.

The attribution variability, referring to companies on the Internet, is difficult to qualify because it is marked by changes occurring with a high frequency. This, for example, can be found in the high birth-death rate of the Websites, in the change of the supply modalities of products in the virtual store, in the enrichment of the choice and in the characteristics of services provided to customers. In the case of services offered by an *e-wine*-store besides those relating to the logistic aspects (transport/delivery, monetary transactions, etc.) that are shown mainly if the relationship is of the kind *buy hold sell* – we can mention the possibility of providing through video the support of a wine expert who, with audio in different languages, examines the characteristics of the different characteristics of wine and gives advice on how to store them, serve them and match them with meals<sup>7</sup>.

It seems clear that the analysis of the e-wine phenomenon turns out to be particularly difficult as it combines two phenomena, the wine sector and online distribution, that, as we have seen, are characterised by a high degree of complexity, derived especially from the great variability characterizing its elements.

What allows us to reduce the complexity of such an arena, from the consumers' point of view, is the virtual store that represents the virtual meeting 'place' for sellers and buyers, that 'classifies' a series of information related to the wine producer and his supply making them usable by the online purchaser.

One of the strongest points of the Internet is the possibility for many people to have access to a wide variety of information, thus cancelling the traditional *trade-off* that is carried out by the companies of real economy between the variables *richness* and *reach*<sup>8</sup>. In the traditional wine-shops, in fact, a high degree of richness (that is a wide, personalised, reliable supply of information giving the possibility of dialogue between distributor and purchaser) is mostly combined with a low *reach* level, as it can reach a target clientele quite reduced in number (this usually occurs in wine-shops or in specialised shops; the opposite case occurs instead when the sale channel is used in GDO). Through the Internet, contrariwise, a remarkable number of subjects can exchange a great quantity and variety of information; the Internet, in fact assures a high interactivity and can create a network among subjects who are interested in exchanging information, thus compressing times and

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<sup>6</sup> << Per tutti quei beni che richiedono la consegna fisica al cliente finale, la sostenibilità e la profittabilità di modelli di business basati sul commercio elettronico rivolto al consumatore finale dipende in larga misura dalla capacità di organizzare e gestire in modo efficace ed efficiente il processo logistico, dal ricevimento degli ordini alla consegna della merce, includendo anche tutti i processi post-transazionali (assistenza post-vendita, gestione dei resi, gestione delle consegne fallite), al fine di poter raggiungere un adeguato trade-off tra costi e livello di servizio (il cui obiettivo, come è evidente, indirizza anche le scelte inerenti la distribuzione on line).>> Maizza, A. & Iazzi, A. (2006). *Wine e Web: l'e-commerce dei prodotti agro-alimentari tipici*. In Piccaluga, A. & Rosato, P. *I nuovi Marketing*. Milano: FrancoAngeli. pag. 51 e segg.

<sup>7</sup> Such service is offered, for example, by Veuve Clicquot. See the website [www.veuve-clicquot.com](http://www.veuve-clicquot.com).

<sup>8</sup> More in detail, the term *richness* can be declined in the following qualitative characteristics: variety of information (precision); possibility of personalising it on the basis of the specific needs of the receiver (*customization*); quantity of information that can be object of exchange at a given time (wideness); possibility for those who receive the information to interact with the offerer (interactivity); guarantee that the exchanged information is safe and reliable. With *reach*, instead is usually represented the idea of connectivity, i.e. the number of people that, in special communities, can have access to the information with the previous characteristics. Valdani, E. (2000). *L'impresa pro-attiva. Co-evolvere e competere nell'era dell'immaginazione*. Milano: McGraw-Hill.

costs of transaction and reducing the information asymmetries (Valdani, 2000; Prandelli and Verona, 2002).

Such change has pushed several companies already operating in the traditional market (in the wine sector and other) to revise their own competitive strategies, that is to consider the possibility of their access in the web to defend their market position, conquered and threatened, partly, by the new entering companies that have built their competitive benefit also on the new opportunities offered by the Net (in the wine sector we refer in particular to the New World competitors appearing very interested to the potentialities of new technologies).

For the companies producing great consumption needs (and also for those of wine sector), new, interesting perspectives originates due also to the speed with which the relation in the Web establish. To enjoy the benefits deriving from that, the production companies must be able to organise in order to run the new virtual context facilitating not only the communicative process started by the company and addressed to the customer (*one to many* relations), but also, and especially, the diffusion of opinions among the consumers themselves (*many to many*) (Gronroos, 1994). Such transmission brings about a wide spreading of consumption experiences which can vary, not only the communication achieved by the company, but also, the force itself of the trustee component of the brand, without the company's intervention in checking and/or addressing such process (Aaker and Joachimsthaler, 2000) from which, finally can derive both positive and negative effects.

Owing to this context, Internet appears a phenomenon from which originates bounds and opportunities for many Italian wine companies having the possibility to build global relations for local products and resources. At this purpose it must be observed that in the United States, where wine is acquiring more and more popularity, in 2007 17% of consumers has bought this product directly from the cellars thanks to the Internet<sup>9</sup>.

The search for visibility of a new brand in the Web, on the contrary, appears particularly difficult especially for the companies that does not have a well-known brand; the peculiar component of the *brand* generally qualifying an Internet company is present in the domain and it takes relevance as it is a valid way to fight the overcrowding typical of the Web, representing the main element of identification of a company compared to its competitors (Rayport and Jaworsky, 2001)<sup>10</sup>.

The competition on the Web, obviously, is not only based on the ability of generating traffic on the website, but also on the possibility of turning the user into purchaser, an issue present also in real economy. As to commercialisation of wine in the real market we face nowadays the more and more frequent recourse to visual merchandising techniques in order to make the shelf more attractive towards potential purchasers and so to strengthen their decision process. At this purpose we can notice that Great Distribution, beside devoting greater space in the shelf to the wines, is setting areas especially devoted to the sale of this product. In particular, many points of sale have reserved areas using them as 'cantine' <sup>11</sup>, grouping wines for region of origin and making several information available for the potential buyer, by means of legends or electronic kiosks (Botti, 2001), also concerning the area in which the wine is produced (Casci and Benedetto, 2007); in this way the link territory-wine is reinforced and a virtuous circle is started where the value of each is

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<sup>9</sup> In general, the potentialities represented by e-commerce are enormous: according to a report of the School of Management del Politecnico di Milano and Netcom (the association of Italian electronic commerce) only in Italy in 2007 the total turnover has been 5,3 billions euros, with a 30% increase as compared to 2006. Taken from [www.01net.it](http://www.01net.it).

<sup>10</sup> Most of the users surfing on the, about 75%, uses the search engines to find a site. The other users reach the site through the directory, from the links, words-of-mouth and if the site is famous by media. Taverniti, G. Guida pratica al posizionamento nei motori di ricerca. *3 Web Marketing e Madri Internet Marketing* can be downloaded from the website: [www.giorgiotaverniti.it](http://www.giorgiotaverniti.it).

<sup>11</sup> Tesco, in the commerciale centre of Citè Europe in Calais, has opened beside the supermarket a Tesco Wine storea real specialised point of sale. The experience developed by Tesco in the management of wine category has allowed him to turn a department into a specialised independent pint of sale. Premazzi, K. (2001). La progettazione dell'assortimento. In Castaldo, S. (2001). Retailing & innovazione. *Egea*.

self-nourished. This is also provided in the virtual stores where the choice is generally presented through the use of an internal search engine<sup>12</sup> allowing the surfer to make his choice; more and more often, however, the pre-selection criterion used in the Internet websites is based on the region of origin of the wine about which information about its story, customs and culture are provided.

As in the traditional store, also in the wine virtual store some mechanisms linked to the pleasantness of the visit are activated which can influence the permanence time of the surfer and, consequently, can potentially lead him to the purchase (Castaldo and Premazzi, 2001): just think to the graphics of the website, the background music, the matching with complementary products (category management), etc<sup>13</sup>. The site can thus become the virtual place in which the consumer identifies stimulating the purchase and especially the repurchase. The birth of virtual communities emphasises the aspect of identification and development of customers' loyalty as it represents the ideal environment for the circulation and sharing of information among the customers. Such mechanism, apart from creating value for those who belong to the community, represents a useful source of knowledge also for the virtual intermediary who takes life-blood for his survival both from possessing the information regarding the surfer/potential purchasers and from the diffusion of the information concerning his choice among them<sup>14</sup>.

Further elements that can influence the decisional process of the potential online wine purchaser are *customer service* that specifically are based on the endless improvement, and of the activities related to it, in order to adapt it to the customer's needs – sometimes also on the ground of the indications provided by him (through chat, e-mail, etc.) and its easiness to be 'surfed' i.e. the easiness of using the technology.

Finally, what we tried to stress so far is the centrality of the virtual shop in addressing the choice of the visitor/potential purchaser. This is valid especially if the goods commercialised online are a cognitive product, such as wine, for whose purchase the surfer needs precise and accurate preliminary information.

### **3. Appraisal of several 'e-wine' websites**

The motivation to assess a web site's effectiveness comes from the need to constantly verify and monitor the alignment of interests between website owners and those of their users (customers). Such research brings about a rising importance on the area as a whole, which in turn demands continuous control on the correctness of the choices adopted and on their performance, in order to bring about, if necessary, any modifications that may help improve the effectiveness and efficiency of its management<sup>15</sup>. Such an evaluation would seem much more useful on sites dedicated to e-commerce since, in such cases, the site owner's main objective is above all economic in nature and, therefore, the focus that the site must have is "to sell" and "to generate profit".

The choice of model to employ for the assessment of a site is not at all simple since there are many aspects that define the "quality" of a site<sup>16</sup> and the effect it can generate<sup>17</sup>, therefore the model used

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<sup>12</sup> Among the search criteria are stressed the 'type' of wine (referred to as red, white, rosé) and the variety" of wine with which we refer to the vines, among which we remember: Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay, Sauvignon Blanc, Zinfandel.

<sup>13</sup> The websites of the most prestigious world wine companies (Moët & Chandon, Veuve Clicquot, Dom Perignon) fill the screen the bubbles, present interviews with testimonials known all over the world, try to make the atmosphere of their site 'inebriating' so as to involve the surfer and turn him into a loyal buyer.

<sup>14</sup> At this purpose, referring to wine, visit [www.vinix.it](http://www.vinix.it).

<sup>15</sup> It seems correct to assert that the appraisal of a website can be compared, *mutatis mutandis*, to the activity of control of management in enterprise. On this point see Maizza, A. (2007). *La gestione d'impresa tra vitalità e rischio di crisi*. Bari: Cacucci. pag. 121 and following.

<sup>16</sup> << La quality of a website is determined from the total set of characteristics that contribute to satisfying the requirements of the various categories of stakeholder or actors>>. Mich, L. (2007). *La valutazione della qualità dei siti web*. Roma: Kappa.

<sup>17</sup> There are many 'agents' who take part in the construction and management of a website, with different duties, but whose activity must necessarily integrate with that of all the others: web designer, graphic artist, software developers,

would have to allow for the evaluation of each of these factors as well as take account of the effect each one has on the overall impact of the site in respect to its intended objective<sup>18</sup>.

### 3.1 The model used

The model employed to evaluate Internet sites that deal with e-commerce in wines (here defined as *e-wine*) is the commonly cited 2QCV2Q (Mich and Franch, 2000), an abbreviation of the ciceronian *loci (or argomenta) Quis, Quid, Cur, Ubi, Quando, Quomodo*. The choice has always fallen back to this model in so much that it appears complete, simple to employ, generic in application (with adequate adaptability) and, above all, because it has a solid theoretical base in the way it adheres to the principles of classic rhetoric; that is the simple way it communicates a given subject matter<sup>19</sup>. Since the Internet is only a relatively new channel of communication, evolved from the ICT (Information and Communications Technology) sector, it should be subjected to the aforementioned principles of rhetoric so that the contents are conveyed in as simple, effective and intuitive a way as possible.

In adopting the model 2QCV2Q, there are six essential measures with which to conduct a comparative analysis of the Internet, as follows: *Identity (Quis? Who?)*, *Content (Quid? What?)*, *Services (Cur? Why?)*, *Individuation (Ubi? Where?)*, *Management (Quando? When?)*, *Usability (Quomodo? How?)*<sup>20</sup>. Each one of these elements is conveyed under sub-attributes to which different meanings and values are assigned according to the specific type of Internet site category being assessed.

### 3.2 The search methodology

The objective of the current analysis is, as already indicated, to appraise a selection of *e-wine* websites. The crucial phases for carrying out the research were:

- the selection of the Internet sites to evaluate,
- the specification of the parameters,
- the adaptation of the model 2QCV2Q.

#### *Selection of the Internet sites to assess*

Since, as previously mentioned, the macro-phenomenon, “e-commerce in the field of wine” introduces elevated degrees of complexity by way of the number of dedicated e-commerce websites there are, it has become necessary to establish criteria with which to choose only a limited sample of those available<sup>21</sup>. This specification came about with the following procedure<sup>22</sup>:

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content editors, webmaster, network administrators. On this point see Polillo, R. (2004). *Il check-up dei siti web. Valutare la qualità per migliorarla*. Milano: Apogeo.

<sup>18</sup> There are many models present in literature for the appraisal of website; each one places its focus on a specific aspect of website and attempts to satisfy a specific knowledge need; for such a reason these models are not, “independent of the domain” (that is adaptable to websites of various economic and social fields) neither are they “sturdy” (that is able to classify whichever aspect of website). For view of the bibliography pertaining to quality appraisal models of Internet sites refer to: <http://www.economia.unitn.it/etourism/risorseQualita.asp>.

<sup>19</sup> It is therefore obvious the social importance that this discipline covers, since in fact, it suggests simplifying the objective and facilitating communication. The aspects of the rhetoric have been adopted, beginning with mid Forties, it is also a notable feature in journalism the rule of the “5 wh-questions: who, what, why, when, to where”.

<sup>20</sup> There is a more complete version of the 2QCV2Q model specified that is contained in the goal-model 2QCV3Q or Model 7 loci. This last version provides for the insertion of a seventh parameter, that is QVIBVS AVXILIIS? Feasibility, that comprises the activities of planning of human resources, financial institutions, thunderstorms and the accommodation of all the activities in regard to the website. Although it has a fundamental role to guarantee the success of a website, it has not been considered here since for its appraisal the availability of the website owner is indispensable which, in this current work, has not been made. For an in-depth understanding on model 7 loci see Mich, L., & Franch, M. (2002, November 13-15). Requirements for a Tool to Support Evaluation of Web Site Quality based on the 2QCV3Q Model. Isaias P. (ed.), Proc. IADIS WWW/Internet 2002, Lisbona, Portogallo; Mich, L., & Franch, M. & Cilione, G. (2003). The 2QCV3Q quality Model for the Analysis of Web Site Requirements. *Journal of Web Engineering*, 2, 2.

<sup>21</sup> There is no intention here to supply the field results that are generalizable to any reference set (that is the all websites that are about the e-commerce of wine) since it is not notable. It is intended instead to give some indication of the qualities of the object under study.

1. determination of the more well-known search engines used world-wide, that is: [www.google.com](http://www.google.com)<sup>23</sup>, [www.yahoo.com](http://www.yahoo.com), [www.msn.com](http://www.msn.com), [www.alltheweb.com](http://www.alltheweb.com), [www.altavista.com](http://www.altavista.com);
2. choice of the *keywords* to insert in the *search* section of the aforementioned search engines, that is: “e-commerce wine shop”<sup>24</sup>. The choice has fallen back to keywords in English since, most probably, the e-commerce portal owners choose the one universal language on which to index searches;
3. selection of the websites to evaluate: after inserting the fore-chosen keywords in the individual search engines, a true comparison was able to be made between the first two page returns of each<sup>25</sup> to derive the most commonly recurring websites<sup>26</sup>. Finally, there were altogether thirteen Internet sites to scrutinise, being<sup>27</sup>: [www.il-vino.com](http://www.il-vino.com), [www.winecommune-it.com](http://www.winecommune-it.com), [www.wineshop.it](http://www.wineshop.it), [www.italianwinemerchantstore.com](http://www.italianwinemerchantstore.com), [www.tangowine.com](http://www.tangowine.com), [www.buy-a-wine.com](http://www.buy-a-wine.com), [www.italianwineshop.it](http://www.italianwineshop.it), [www.pawineandspirits.com](http://www.pawineandspirits.com), [www.wineweb.com](http://www.wineweb.com), [www.wineexpress.com](http://www.wineexpress.com), [www.primewines.com](http://www.primewines.com), [www.cellaraiders.com](http://www.cellaraiders.com), [www.winechateau.com](http://www.winechateau.com).

### **Specification of the parameters**

In order to make a website survey as objective an appraisal as possible, a preliminary comparison between the parameters was made<sup>28</sup>, during which the meaning of the attributes and the sub-attributes of the *2QCV2Q* model were revealed and compared. The attempt to standardize the perception (which in itself remains a strictly subjective phenomenon and, as such, difficult to assimilate) of some wholly qualitative sub-attributes in the model, has been done via visits to sites dedicated to the e-commerce of wine<sup>29</sup>. Their stylisation, graphical and technical aspects, etc have been the object of individual and undisclosed evaluations, in the first instance, and subsequently these elements have been compared and accepted through conference, culminating in the formulation of a standard model that the assessors have subsequently and individually used for the accomplishment of their task.

For the appraisal of objectively determined elements of the model (such as the ranking of sites or download times of pages) available analytical freeware online has been taken advantage of<sup>30</sup>.

### **Adaptation of the 2QCV2Q model**

The choice of model to employ for assessing “e-commerce in the wine field” as already delineated, rests on the *2QCV2Q* model by way of its greater versatility. That is, it can be used for the analysis of any website and since it is founded upon principles of the classic rhetoric it can be used to thoroughly assess the information contained therein. Moreover, with the appropriate insight, it can be adapted to the specificity of any site. In particular such a modification, can easily be attained by allocating a weighting to the sub-attributes of the 6 *loci*. The weight expresses the importance of

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<sup>22</sup> In consideration of the modern techniques used in order to improve the positioning on the Internet and consequently of the limited validity of the website ranking on each search engine, such a task was needed to be put into effect in a single day, at the beginning of January 2008.

<sup>23</sup> Such a search engine has automatic addressing on [www.google.it](http://www.google.it).

<sup>24</sup> From a survey of Onestat on the strategies of user searches it turns out that 29.2% of them employ two keywords in order to carry out their searches, 24.76% use one keyword, 24.33% insert three keywords. <http://www.onestat.com>.

<sup>25</sup> It turns out that the web-users rarely visit search engines links beyond the second return page.

<sup>26</sup> The results from the sponsors box were excluded, in order to avoid the corresponding “investments advertising-visibility” in the sections of the search engines financed through the sale of advertising space.

<sup>27</sup> It can be seen that there are only three Italian sites, the others are American as evidenced by the greater spread in the USA of the use of the Internet and new technologies in general, of payments through credit cards etc; elements that distinguish in a decisive way the success of any initiative of e-commerce.

<sup>28</sup> Two investigators from the Faculty of Economy at the University of the Salento, the owner of an IT products store, 13 students from a post-graduate formation course with different study curricula; the age of the assessors is between 20 and 40 years old. The heterogeneity of the members the group agrees with the aims of the standard evaluation models.

<sup>29</sup> In this phase the pre-selected e-commerce websites for wine were not visited and neither the object of analysis examined least the judgment of every assessor would be unaffected by that of his colleagues.

<sup>30</sup> Please refer to the following website: [www.tuttowebmaster.it](http://www.tuttowebmaster.it). Such software has only been used by the university researchers.

each sub-attribute and concurs with the type of website and on the perceived aims of both website owner and customer.

The 2QCV2Q model applied in the current work is revealed as follows; the 6 ciceronian *loci* and sub-attributes they refer to containing a short description.

Table 1: The 2QCV2Q model applied to *e-wine*

CICERONIAN LOCI	ATTRIBUTES AND SUBATTRIBUTES		Weight
QVIS IDENTITY Who?	<b>Identification</b>		
	Brand	Identifying role of the e-brand in respect to the enterprise's proposition.	0,20
	Image	Coherence between the image projected by the enterprise and reality of the website.	0,20
	<b>Characterisation</b>		
	Design	Acceptability of the image proposed in terms of design, and conformity between mission and operation of e-commerce site.	0,30
	Personalization	Level of modification of the contents of the website in relation to the requirements of the customer whether in terms of language or of functions.	0,30
QVID CONTENT What?	<b>Coverage</b>		
	Domain referred to owner's and users' goals	Degree of detail of the information inserted regarding the various characterizing aspects of the product (cultivar, area of cultivation, vintage year, characteristics of aging, etc), the purchase procedures, the shipment options, etc.	0,30
	Value of information and links	Presence in the website of hypertext links to external information useful in guiding the customer during his decision process.	0,30
	<b>Accuracy</b>		
	Quality of information	Evaluation of the correctness, accuracy and reliability of the information found in the e-commerce site and externally linked sources.	0,35
	Source(s), author(s)	Evaluation of the correctness, accuracy and reliability of the information found in the e-commerce site and externally linked sources.	0,05
CVR SERVICES Why?	<b>Functionalities</b>		
	Adequacy to owner's goals	Presence of useful technical tools by which the website owner can attain his goals (sales and loyalty building [repeat business]).	0,30
	Adequacy to users' goals	Presence of elements useful to the customer to make "informed" purchase and that gives a pleasurable and satisfying experience.	0,30
	<b>Control</b>		
	Correctness	Presence in the website of incorrect/broken hyperlinks that can cause disorientation for the customer.	0,10
	Security, ethics and privacy	Presence of transaction systems through credit cards that give a sense of security in potential buyers. Respect of privacy.	0,30
VBI INDIVIDUATION Where?	<b>Location</b>		
	Intuitive URL	Degree of ease in remembering the domain name (or url)	0,25
	Retrieval	Evaluation of ranking, expressed through repetitive definition systems (Google PR).	0,25
	<b>Interactivity</b>		
	Contact information	Evaluation of ranking, expressed through repetitive definition systems (Google PR).	0,25
	Community building	Insertion of new products in the range, updating information, verification of the update of the linked sites, to moderate the online communities and forums.	0,25
QVANDO MANAGEMENT When?	<b>Currency</b>		
	Update	Insertion of new products in the range, updating information, verification of the update of the linked sites, to moderate the online communities and forums.	0,50
	Date	Presence of the date of the edition and its last revision.	0,10
	<b>Maintenance</b>		
	Check-up	Absence of connection issues due to crashed servers and / or broken links	0,25
	Tools	Specification of the programming language with which the website has been created and statement of the degree of updating it has undergone.	0,15
QVOMODO USABILITY How?	<b>Accessibility</b>		
	Hardware and Software requirements	Evaluation of the required hardware and software to be able to access a website (independent of the browser, or request of plugins).	0,15
	People with disabilities	Presence of useful support for website access for the disabled.	0,10
	<b>Navigation</b>		
	Download times	Verification of the website download times carried out through <a href="http://www.tuttowebmaster.it">www.tuttowebmaster.it</a> .	0,25
	Structure, Orientation	Presence of useful sitemaps Internet or of software for guided navigation.	0,20
	<b>Comprehensibility</b>		
	Languages	Presence of possible multilingual choice.	0,20
Level of terminology	Examination of the linguistic property and ease of interpretation of the text and symbols.	0,10	

Source: adapted from the author by Mich, L. & Franch, M. (2000). 2QCV2Q: A model for Web Sites Analysis and Evaluation. *Proc. IRMA '00, Idea Group Publishing*.



### 3.3 Application of the model and results

The analysis of the websites on the part of the assessors came about in successive phases. After having divide up the assessment criteria, each researcher individually visited a number of websites several times over and after a careful analysis and comparison between them, proceeded to the compilation of a synopsis form for the 2QCV2Q model for each website. To every sub-attribute of the 6 ciceronian *loci* a score from 0 to 4 was given, where 0= absent, 1= insufficient, 2= sufficient, 3= good, 4= very good. Following that, each researcher proceeded to the assessment of the assigned score for every sub-attribute and then the result determined for every macro-attribute, which was added to the total evaluation of the 6 *loci*. The final assessment of each website in the following diagram is the result of the average of the total assessments assigned individually from the various researchers.

One aspect that deserves particular clarification is the one related to the assignment of the weights of the various sub-attributes in each macro-attribute. It is specified, that to each of the 6 *loci* there has been a total weight equal to 1 assigned; such a value has been redistributed between the several sub-attributes within every macro-attribute on the basis of the contribution each one makes to the objective of the *e-wine* enterprise. As mentioned previously, the assignment of weights was collaborated on amongst the assessors and was guided by following observation:

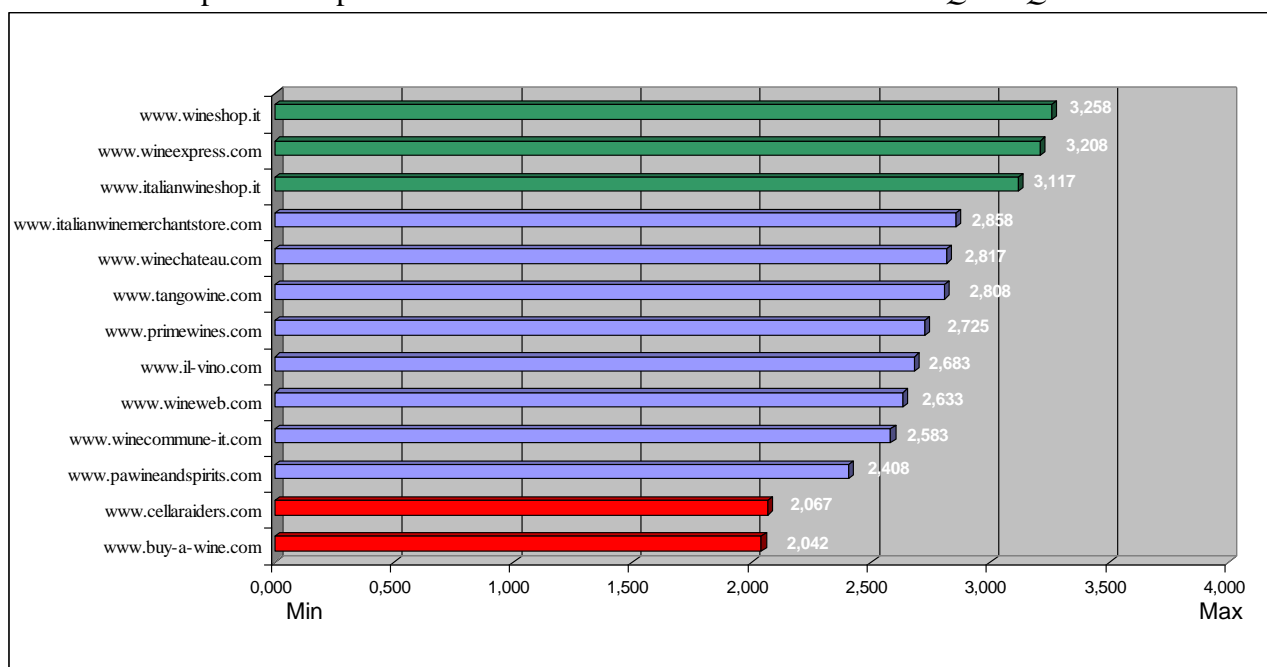
- in the macro-attribute “Identity”, the sub-attribute “Characterization” has been assigned a total weight equal to 0,60; that has since been thought that the *e-wine* of the type surveyed, that is from intermediary commerce of an online multi-brand, must at the same time be aesthetic and functional;
- in the macro-attribute “Content” a total weight equal to 0,90 has been assigned to the inherent information sub-attributes and 0,10 to the informative source; since in an e-commerce site the information on the products on display can only come from the manufacturers or the manager of the intermediary website and is therefore reliable. Greater attention, instead, must be given to the type of information and to its ability to satisfy the cognitive requirements of the customers/potential purchasers;
- in the macro-attribute “Services” a greater weight has been assigned to the sub-attributes relative to the presence of elements useful to the customer to make an informed and satisfactory purchase, and that the respect of privacy and the security of the transaction is guaranteed, aspects of which have a notable degree of influence on the decision process and purchase of the navigator.
- in the macro-attribute “Individuation” the weight has been equally subdivided between the four considered sub-attributes in so much as they appears equally important in *e-wine*; refers to the readiness in tracing the website back through the Internet and to the possibility of contacting the owner of the website as well as establishing contact with other customers;
- in the macro-attribute “Management” the inherent quality of updating information has been assigned a considerable weight in that it is deemed that the updating of the information contained in the website and of the proposed selection takes on a particular importance in *e-wine*;
- in the macro-attribute “Usability” it is considered worth assigning a greater weight to the speed of page-loading and to the ease of navigation of the website, also for customers of different nationalities.

The results reached here, applying the 2QCV2Q model to the pre-chosen *e-wine* sites is synthesised in the following diagram. It is observed that all the surveyed websites have obtained a total assessment greater than sufficient (precisely the average of the scores of all the websites and equal to 2,71); this demonstrates that *e-wine sites* that have the better positioning in the bigger search engines (remember that this has been the criterion in choosing websites to assess) are also those that introduce technical characteristics, stylisation and advanced functions to one of the base minimum. In observing the diagram, it is possible to see that at least three websites out of 13 have reported summary values greater than 3 (good) and that there is no raised spread around the average. It can

also be noticed that the first place of classification is occupied by [www.wineshop.it](http://www.wineshop.it), an Italian site (that deals exclusively in Italian wines) that is also in the best reviews in online blogs, in the forums and in the specialized online communities be they in Italy or abroad. It is the only one among the analysed *e-wine* sites that offers a section dedicated to wine-tourism, proposing thematic tours to the higher wine-growing and producing areas (primarily in the district of Tuscany). The importance given by the security of on-line transactions can be seen through the evidence of mail to the partnership of the project *Fiducia di Federcomin* (Confidence in Federcomin).

In second place [www.wineexpress.com](http://www.wineexpress.com) appears, an *e-wine* site characterized by a simple and intuitive design. The criteria for choosing these commercial wines are based on the geographic area of their production, the colour of the wine and the grape type. On the website particular emphasis is made on the “wine club”, on the weekly offers and the advice found on the labels, particularly notes. It is the only one among the websites surveyed that has on the Home Page a space especially for observations on wine from testimonials given by people. Such a site, moreover, provides visitors with video-clips given by expert sommeliers who bring to life the features of the wine being viewed for purchase even in front of an impersonal computer<sup>31</sup>.

Graph 1: Complete evaluation of some *e-wine* sites with the 2QCV2Q model



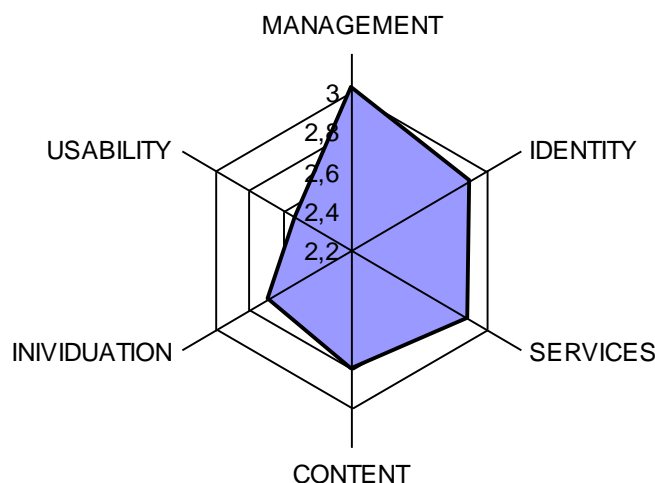
Source: our elaboration

The survey measure that it has shown the lowest value in the analysis and as such represents an area of possible improvement, is “Usability”. This relates to the online users ability to make use of the *e-wine* site without the need for extra input financially, time-wise or in understanding; in particular, there was absence of amenities for the disabled in all the *e-wine* sites examined. The highest average score was instead reported from the macro-attribute “Management” to which, as mentioned before, a considerable weight has been assigned to the sub-attribute for the updating of information, fundamental to any Internet site, of greater importance still if it is an e-commerce site. To emphasize the positive assessment derived from “Identity”, in particular it can be seen that all the *e-wine* sites analysed (with the exception of [www.cellaraiders.com](http://www.cellaraiders.com)) contain in their URL the word “wine” or “vino”; moreover all the websites evaluated seemed user-friendly, with a navigability that is appeared comfortable to use for inexpert customers too. Noticeably, the result reached by “Services” where the scores given by the assessors were higher for the perception of a guarantee of

<sup>31</sup> The comments on the 13 surveyed sites referred to are not reported here for obvious reasons of space.

secure transactions and privacy. In fact, all the websites publish their agreements in the supply of the bank services and online transactions in an obvious way, through well-known service providers that guarantee the security of the transactions.

Graph 2: An evaluation of the average of the *loci*



Source: our elaboration

### Concluding notes

The intended objective of this appraisal was to verify whether e-commerce could represent a valid alternative distribution channel for wine manufacturers, above all for those of smaller businesses. Therefore an attempt to verify whether a website/virtual store could contribute to reducing the complexity of the *e-wine* experience for the eyes of the navigator and, in such a way, induce them to make an on-line purchase.

To such ends, employing the *2QCV2Q* model has allowed the estimation of the quality of some e-commerce websites for wines in order to assess their potential to influence the decision process of the navigator/potential buyer. The 6 ciceronian *loci* were used as the means of analysis in 13 pre-selected *e-wine* sites and it is possible to state that all the websites examined have returned a positive assessment, averagely better than satisfactory (sufficient). In particular, the “Management” attribute obtained the highest total average value as demonstrated by the prioritisation of their information and the updating of their websites, even more so as they are e-commerce sites. Such a result, moreover, holds more weight if read together with a reasonable analysis of “Content”. This is evidenced by the fact that the information supports the elimination of the gap created by the absence of a personal relationship between vendor and purchaser and, above all, satisfies the need that is fundamental in making an informed judgement in the purchase of a “connoisseurs” product such as wine.

Of particular note are the complete evaluations given by “Identity” and “Services” attributes. In regard to “Identity”, it can be seen that all the *e-wine* sites analysed (with the exception of one) contain in their URL the word “wine” or “vino” and seemed user-friendly. The considerable importance assigned to “Services” by the researchers, is principally derived from a greater perception that security is guaranteed in transactions and so is privacy. In respect to “Individuation” and “Usability” the following areas are of notable improvement. The assessment of “Usability” is considered only sufficient; this is determined mainly by an absence of website accessibility for the disabled, for which the cause can be apportioned to the lesser perceived need for this on the sites examined. This ought to be easily remedied using the necessary tools. Probably more complex is the attempt to improve “Individuation”, given that on the Internet, birth-death rates of websites (not

only those of wine) is immense, and through navigating on-line the user is distracted by numerous elements that may deviate their search.

In conclusion, from the current situation it seems that e-commerce can promote opportunities for business in the viticulture industries, particularly if it is adaptable to their own offering and is aligned with the navigator's need to have a useful and satisfying on-line experience.

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