An Australian Winery B2C Website Design Framework and Contributing Factors to the e-SQ Gaps

Robyn Davidson[1] and Susan Lambert[2]

Flinders University, South Australia

[1]Robyn.Davidson@flinders.edu.au

[2]Susan.Lambert@flinders.edu.au

Abstract

A business-to-consumer (B2C) website design framework has been developed to assist Australian wineries in creating new, or modifying existing, websites to facilitate B2C electronic commerce. The framework was developed and refined using information from numerous sources. The final refinement was predominantly based on information derived from surveys of winery customers. The framework enables the identification of electronic service quality (e-SQ) gaps present in Australian wineries. In addition, it is envisaged that the framework will enable a structured approach to customer-centric website development. This paper presents the development of this framework and outlines the contributing characteristics to e-SQ gaps in Australian wineries.

1   Introduction – The Need for a B2C Website Design Framework

Having a World Wide Web (Web) presence has been identified as an important step towards sustainability and gaining a competitive advantage for Australian wineries [ACIL Consulting, 2002; Goodman, 2002; NOIE, 2000]. As such, wineries have been quick to take up the challenge with 58% of Australian wineries having a website at the beginning of 2004 compared to 37% in 2002 [Winetitles, 2002 & 2004].

Personal correspondence with several winery managers in the McLaren Vale region of South Australia unveiled a general belief that a Web presence was required, however there was some uncertainty about how a website could be used effectively.

Zeithaml, Parasuraman, and Malhotra [2002] claim that for a website to be effective it must meet customer requirements. The basic concept of Zeithaml et al.'s [2002] 'Conceptual Model for Understanding and Improving Electronic Service Quality (e-SQ)' is that if customer website requirements are met the customer will derive value and e-SQ from the site and will make purchases and repeat purchases. Purchases may not necessarily be on-line but via more traditional means, however they are instigated through a visit to the website. Zeithaml et al. [2002] propose the existence of four e-SQ gaps (information, design, communication, and fulfilment gaps) that contribute to

customer dissatisfaction. This model was used as the basis of research conducted by Davidson [2005; Davidson & Cooper 2005] to determine the effectiveness of Australian winery websites. A comprehensive study was undertaken which involved gathering data from winery managers, winery website customers, and from the websites themselves.

For the purpose of this study website customers are deemed to be website visitors that have visited the website intentionally. It is assumed that an intentional visitor is a potential customer and that potential customers have an interest in the website similar to that of an actual customer. That is, to gather information about an organisation or its products. This is different to the Web surfer who just happens across a site while browsing the Web with no real purpose.

The data collected was analysed and it was determined that e-SQ gaps existed. Furthermore, an innovative method of measuring the size of the e-SQ gaps was developed.

Overall, it was found that winery managers have a reasonable understanding of customer website requirements, however those requirements are not well reflected on winery websites. The result is that customer website requirements are not being met. Either, for business or other reasons managers are deciding not to meet customer requirements, managers are failing to convey the information to the website developers, or they do not realise that they posses this information until they are presented with it.

As a result of this research a B2C website design framework was developed specifically to assist Australian wineries to create new or modify existing B2C websites. This paper presents the development of this design framework and outlines the characteristics that contribute to the e-SQ gaps.

2   The Development of the Winery B2C Website Design Framework

2.1   Preliminary investigation and initial framework

On reviewing the literature it became evident that previous researchers adopted a high-level approach to the development of website design frameworks. The frameworks were designed to be adapted to multiple industries resulting in broad categories with little detail. These include Cockburn and Wilson's [1996] 'Web Site Classification Scheme', Ho's [1997] 'Value-Purpose Evaluation Matrix', Burgess and Cooper's [1999 & 2000] 'MICA' and 'eMICA' models, McKay, Prananto, & Marshall's [2000] 'Stages of Growth e-Business Model', Timmers' 'Internet Business Models' [2000], and Elliot's 'CEC Web Site Evaluation Framework' [2002]. The problem with these high-level approaches is that they rely on the user having sufficient knowledge of the specific industry and its customer needs to be able to define exactly what is required on a website. Furthermore, while these frameworks have been used as evaluation tools, they generally classify the website into a broad category and do not give the user specific guidance on the areas that could be improved.

The website design framework that is the subject of this paper was not developed with the view to applying it to multiple industries; rather it was developed specifically for

Australian wineries to analyse existing B2C websites and to facilitate a structured approach to customer-centric website development.

Based on the evaluation frameworks identified in the literature, Web style guides [including Nielsen, 2000; Stein,1997; Yale, 2003], existing Australian and foreign winery websites, consultation with electronic commerce researchers, website design and development professionals, and Australian winery managers, an initial website design framework was developed [see Davidson 2002, 2003].

The objective of the framework was to capture all of the B2C content and design issues relevant to Australian winery websites. The initial framework consisted of 7 major categories of website design characteristics, represented by the ellipses in Figure 1 and 20 sub-categories, referred to as sections and printed in italics in Figure 1. Each section contained varying numbers of individual content and design characteristics to be considered when creating or modifying a winery website. These 134 characteristics are referred to as elements in the initial framework. The elements relevant to each section are listed in Appendix A.

Company Information
Company Details
Geographical Location
Investor Information

Aesthetics
Aesthetics

Product Information
Wines

AUSTRALIAN WINERY WEB SITE DESIGN FRAMEWORK

Navigation
Navigation

Sales and Ordering
On-Site Tasting & Sales
External Distributors
On-Line Orders
Previous Orders
Cross Selling/Up Selling
Customer Service
Off-Line Orders

Value-Added Features
News / Information
General Information & Features

Content, Organisation and Timeliness
Content
Organisation
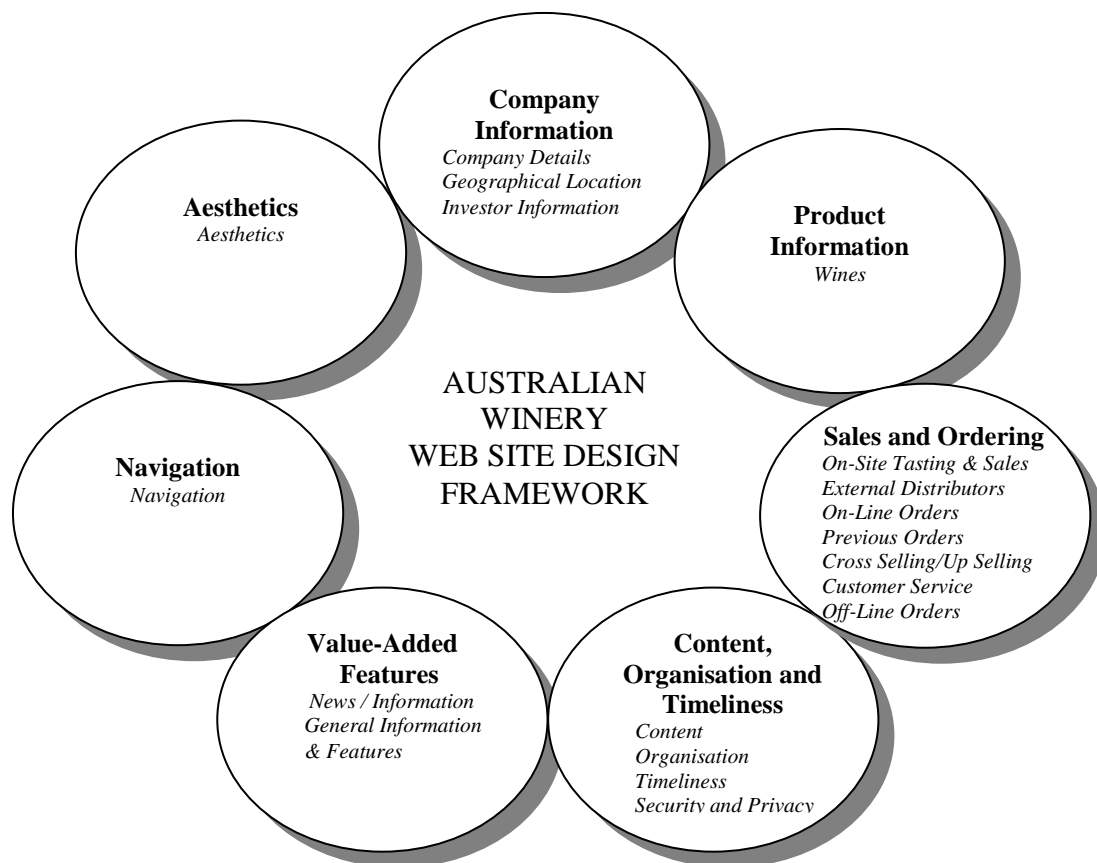*Timeliness*
Security and Privacy

Figure 1: Initial Australian Winery Website Design Framework - Categories and Sections

The framework is essentially a structured list of all of the content and design issues that are relevant to winery websites. It is not an exhaustive list of every characteristic that should be incorporated into every winery website. Some wineries, for various reasons,

make the business decision not to incorporate all customer requirements into the website. For instance, some wineries do not choose to offer online sales, rendering the elements relating to the 'Online Sales' section of the 'Sales and Ordering' category irrelevant to that winery.

This initial B2C website design framework formed the basis of the instrument used to evaluate the websites of 260 Australian Wineries.

2.2   Website evaluations and development of an intermediate framework

From a population of 796 websites listed in the *Australian Wine Industry Directory* [Winetitles, 2002], 260 winery websites were selected. Proportionate, stratified random sampling based on size and geographical location of the winery was applied to ensure that the sample fairly represented Australian winery websites. The seven categories of the framework provided the focus for the evaluations. Websites were examined to determine the presence of company information, value-added features, sales and ordering information and capabilities, product information, security and privacy information and other content. In addition, navigational aspects, aesthetic appeal, organizational and timeliness features were also evaluated using the elements pertaining to each section. This exercise provided a snapshot of the design and content of winery websites in 2003 [Davidson, 2004].

The results of the website evaluations together with further consultations with website designers and developers and fellow researchers provided information that lead to a refinement of the initial framework and the development of an intermediate framework.

All section headings were eliminated and one large category was expanded into four categories making a total of ten categories. The total number of elements was reduced from 135 to 90 by deleting, combining and adding elements. A complete list of changes made at this stage is contained in Appendix B. These changes are not necessarily made as a direct result of the data gathered in the website evaluations and cannot be justified with statistical tools such as factor analysis. The changes are the result of the researcher realising that the original framework was excessively detailed and that some elements did not add value. The intermediate framework, presented in Appendix C, formed the basis of the customer and winery manager surveys that inquired about customer website requirements. In order to aid analysis a question number that related to the question number in the surveys precedes the individual elements in the intermediate framework.

2.3   Customer survey and the final framework

The purpose of the customer survey was to determine the importance of the characteristics included in the survey to customers. Characteristics that were identified as not important to the customers were removed from the framework.

Snowball sampling was used to obtain customer participation. Wineries were asked to email an invitation (supplied by the researcher) to their customers. This email invited customers to participate and provided a link to the Web address of the on-line survey. On completion of the survey customers were asked to provide the name and email address of others who they thought would be interested in participating in the survey. To encourage participation each customer who took part in the survey was eligible to

enter a draw for wine and wine product prizes. To encourage the referral of friends, each referrer was given an additional entry into the prize draw for each name and email address provided. Due to the method used to invite customers to participate, it was not possible to know how many invitations were sent; therefore a customer response rate could not be calculated. A total of 358 useable responses were received from customers.

The customer survey asked customers to rate the importance of 90 website characteristics on a five-point number scale with two polar positions, 1 not important to 5, very important. A copy of the survey questions is presented in Appendix D.

Since the scores were measured on a scale of 1 to 5, the midpoint 3 was used as a decision point. Characteristics with a median score equal to or greater than 3 were classed as important and characteristics with a median score less than 3 were classed as not important. A total of 15 characteristics received scores of less than 3 by customers and were deleted from the framework since customers did not believe them to be important.

It is worth noting that just because characteristics are considered not important by customers does not necessarily mean they have no value in a winery B2C website. Customers may not understand the value of these features at present however they might learn to utilise them in the future. It may also be that these characteristics have value to potential customers whose needs differ from existing customers. This and other limitations of the research are discussed later in this paper. These are judgements that need to be made by the individual website developers and winery managers and, at some time in the future, may form part of B2C website design frameworks.

One further characteristic, 'Use of Frames', was deleted on the advice of a website developer. It was suggested that the use of frames is not an issue for customers or managers to concern themselves with. Frame use was once frowned upon because they were nearly always badly used. However, due to better technology and increased skills of the web developer they can now be used very effectively, and the majority of customers and managers would not be aware of the technicalities behind their use.

In addition, 12 characteristics were combined into 5, these were: price by the bottle and case; reviews by winemaker, professional, and consumer; contact by email or form readily available; text size easy to read and not fixed; and short paragraphs, headings, and bulleted lists; as it was considered they were repetitive and portrayed similar concepts.

The resultant B2C winery website design framework, is presented in Table 1. It has 10 categories and 65 elements. To add further usefulness to this framework, the median score each element was given by customers is included in parenthesis. This allows users to gauge the relative importance placed on each characteristic by customers. In instances where elements from the customer survey were combined to form one element in the framework the average of the medians is recorded.

Australian Winery B2C Website Design Framework	
1 Company information • *Company details (4.80)* • *Contact person (3.76)* • *Winery region (4.63)* **2 Product information** • *Wine description (4.68)* • *Price – bottle and case (4.65)* • *Technical notes (3.05)* • *Tasting chart (3.75)* • *Bestseller list (3.29)* • *Reviews-winemaker, professional, consumer (3.84)* **3 On-site tasting and sales / external distributors** • *Cellar door hours (4.51)* • *Cellar door map (4.54)* • *Distributor details – restaurants, retail, wholesale (3.82)* **4 On-line orders** • *On-line ordering (4.36)* • *Order retained – within site and between sessions (4.25)* • *Price and freight calculated (4.57)* • *Export freight prices (3.35)* • *Order confirmation (4.62)* • *Payment options (4.23)* • *Secured transmission (4.82)* • *Form validation (4.38)* • *Previous orders and customer details remembered (4.13)* • *Similar products suggested (3.07)* **5 Customer service** • *Gift service (3.17)* • *Single bottles (4.04)* • *Mixed cases (4.65)* • *Order status on-line (4.11)* • *Wish list (3.20)* • *Deliver methods (3.87)* • *Bonuses and discounts (4.36)* **6 Off-line orders** • *Fill in, calculate, and print-out order form (4.05)* • *Email orders (4.53)* • *Phone orders (4.32)*	**7 Content, organisation & timeliness** • *Title bar- name and description (4.00)* • *Contact on every page (3.02)* • *Last updated date (3.85)* • *Less than 10 second download time (4.37)* • *Security and privacy policy (4.69)* **8 Value-added features** • *Press releases (3.12)* • *Special offers (4.36)* • *New products (4.38)* • *Best buys(4.37)* • *Wine making information (3.31)* • *Storage information (3.53)* • *Ageing information (4.22)* • *Complementary foods (3.57)* • *Show awards (3.67)* • *Photographs (3.21)* • *Local tourism promoted (3.38)* • *Contact by email or form readily available (4.11)* • *Frequently Asked Questions (FAQs) (3.25)* • *Wine club (3.91)* • *Electronic newsletter (3.51)* • *Contests/give-aways (3.20)* **9 Navigation** • *Site map (3.54)* • *Search facility (3.88)* • *Relevant external links (3.63)* • *Standard link colours (3.36)* **10 Aesthetics** • *Colourful web pages (3.48)* • *Contrasting colours (3.83)* • *Text size – easy to read, not fixed size (3.65)* • *Uncluttered pages (4.64)* • *Short pages (3.28)* • *Same menu/structure (3.85)* • *Clarity - short paragraphs, headings, lists (3.85)* • *Multiple linked pages (3.23)*

Table 1: Refined Australian Winery B2C Website Design Framework

3 Characteristics Contributing to the e-SQ Gaps

3.1 e-SQ gaps

Further to the development of the B2C winery website design framework, research was conducted into what Zeithaml et al. [2002] refer to as electronic service quality gaps (e-SQ). Zeithaml et al.'s [2002] conceptual model (Figure 2) underpins this research. The

scope of the research was limited to three of the four e-SQ gaps, (i.e. the information, design and fulfilment gaps). The communication gap was excluded as were the attributes relating to marketing of the website. The reason for excluding the communication gap is that it requires a different research methodology and data collection from the other gaps. It is expected that testing the existence of the communication gap will be the subject of future research.

Furthermore, the researcher has made no attempt to measure customers' experiences as it is inferred by Zeithaml et al.'s [2002] conceptual model that the quality of the experience will increase as the customers' requirements are met. The result of closing the gaps, and thus having a better website experience, which supposedly leads to greater perceived e-SQ, value and purchases and repeat purchases is also not measured in this study. Therefore, a simplified model that covers the context of this research is presented in Figure 3.
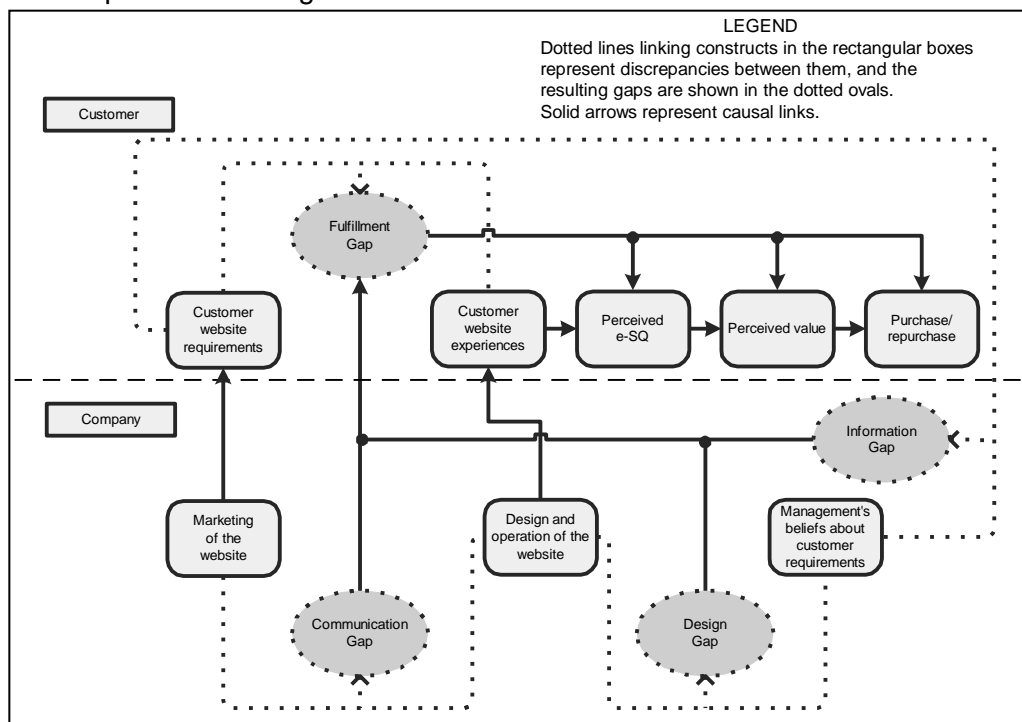

Figure 2: Conceptual Model for Understanding and Improving e-Service Quality (Adapted from Zeithaml et al., 2002)
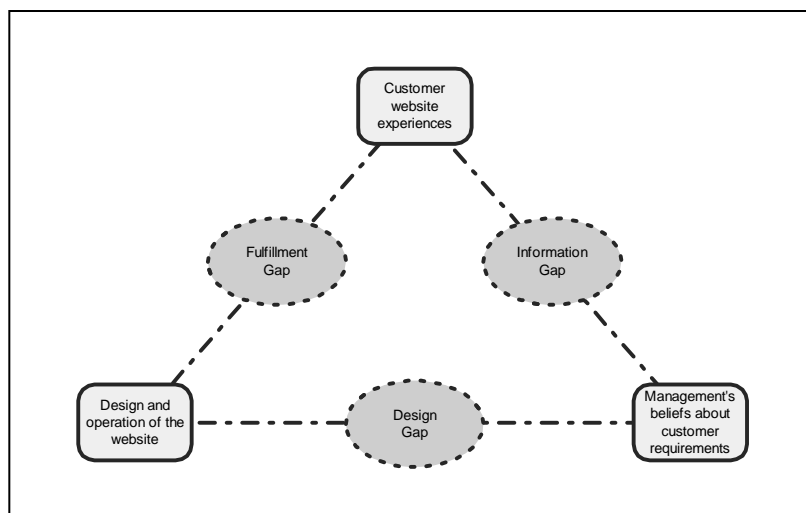
Figure 3: Simplified E-Service Quality Model

The customer survey, the manager survey and the website analyses were used to test for the existence of information, design, and fulfilment e-SQ gaps. Statistical analysis was carried out on the data using regression analysis to determine the existence and size of the gaps. The following gives a brief explanation of these e-SQ gaps. For detailed information on determining the existence and measuring the size of e-SQ gaps see Davidson and Cooper [2005] and Davidson [2005].

3.2 Manager survey

On-line surveys of winery managers were conducted. Managers of all Australian wineries which had a website listing and contact details in the *Wine Industry Directory* [Winetitles, 2004] were invited to participate. Email and the on-line survey was the principal means of communication and participation in the survey, however, a small number of participants chose to complete and mail a paper copy of the survey. Assistance was sought from the editor of the *Australian and New Zealand Grapegrower & Winemaker Journal* (to which the majority of winemakers subscribe), to promote the research in their monthly journal and encourage members to participate in the survey. In addition, letters were sent by post to all 80 of Australia's regional winemaker associations asking them to support this research by distributing flyers to members and encouraging them to participate.

The manager survey was similar to the customer survey in that it asked winery managers to rate the importance of 90 website features to customers on a five-point number scale with two polar positions (1-not important to 5-very important). A copy of these survey questions is also given in Appendix D. The difference between the two surveys is that customers were asked to give their own rating and managers were asked to rate the features the way they thought customers would rate them.

A total of 171 usable responses were received from winery managers, which gave a response rate of 16.3%. This compares favourably with average on-line survey response rates [Couper, 2000; Couper, Blair, and Triplett, 1999; Schaefer & Dillman, 1998].

3.3 Data analysis

To facilitate the comparison of customer and manager survey responses to website evaluations, the data obtained from the website evaluations required standardisation to the survey data format, i.e. given a score of 1 to 5. Table 2 shows the conversion scale and the formula used. Hence, if an item was present on 80% of websites it was given a score of 4.2 (80/100x4+1=4.2).

Percentage Present	Standardized Website Frequency †	Number Scale for Customer and Manager surveys	
100	5	5	Very Important
75	4	4	
50	3	3	
25	2	2	
0	1	1	Not Important
† = (Percentage Present/100) $\times$ 4+1			

Table 2: Measurement Scales

An e-SQ gap does not exist when a perfect positive relationship is present between two variables. For instance, there is no information gap when the ratings that customers give variables (characteristics) match the ratings that winery mangers give. Conversely, a gap exists when there is a deviation away from the perfect positive relationship. To determine which characteristics contributed to the identified gaps an analysis was conducted on the median scores of each variable to determine which variables deviated from each other. For example, to determine the characteristics that contributed to the information gap, the winery managers' median value is subtracted from the customers' median value. The difference is an indication of how far each variable deviates from a perfect positive relationship. The maximum possible deviation is four as the range of possible values is from one to five. The higher the deviation the more the characteristic is contributing to the identified gap.

In Appendix E, the amount of deviation has been calculated and the characteristics that contribute to the gaps are identified. Table 3 provides a summary of the characteristics that made a considerable contribution to each e-SQ gap. A characteristic is considered to make a considerable contribution if it has deviated from the perfect positive position by 2 or more points. The contributors listed in Table 3 are ordered from the highest to lowest deviation. That is, those listed first had the greatest impact on the identified e-SQ gaps. The deviation amount is shown in parentheses after each characteristic. In addition, to aid comparison, the corresponding question number used in the surveys precedes each characteristic.

Information Gap	Design Gap		Fulfilment Gap	
No characteristic made a considerable contribution to the information gap	Q47 Security and privacy policy	(3.05)	Q52 Best buys	(3.37)
	Q52 Best buys	(3.04)	Q47 Security and privacy policy	(3.28)
	Q46 10 second download	(3.01)	Q50 Special offers	(3.15)
	Q50 Special offers	(3.01)	Q33 Order status on-line	(3.06)
	Q22 Secured transmission	(2.96)	Q24 Previous orders remembered	(3.02)
	Q41 Phone orders	(2.85)	Q46 10 second download	(3.00)
	Q40 Email orders	(2.65)	Q22 Secured transmission	(2.96)
	Q51 New products	(2.64)	Q35 Deliver methods	(2.82)
	Q24 Previous orders remembered	(2.59)	Q36 Bonuses and discounts	(2.78)
	Q11c Review-consumer	(2.45)	Q11c Review-consumer	(2.76)
	Q11b Review-professional	(2.43)	Q40 Email orders	(2.72)
	Q64 Contact by form	(2.40)	Q71 Search	(2.69)
	Q33 Order status on-line	(2.38)	Q9 Tasting chart	(2.66)
	Q60 Photographs	(2.36)	Q41 Phone orders	(2.58)
	Q66 Wine club	(2.28)	Q51 New products	(2.52)
	Q9 Tasting chart	(2.26)	Q66 Wine club	(2.42)
	Q38 Fill in order form before printing	(2.18)	Q70 Site map	(2.33)
	Q44 Web address on every page	(2.17)	Q16 Order retained	(2.29)
	Q18 Export freight prices	(2.16)	Q10 Bestseller list	(2.27)
	Q36 Bonuses and discounts	(2.12)	Q54 Storage info.	(2.23)
	Q71 Search	(2.12)	Q34 Wish list	(2.20)
	Q30 Gift service	(2.09)	Q11b Review-professional	(2.17)
	Q13 Cellar door map	(2.07)	Q45 Last updated date	(2.17)
	Q70 Site map	(2.03)	Q64 Contact by form	(2.16)
	Q15 On-line ordering	(2.03)	Q38 Fill in order form before printing	(2.15)
	Q35 Deliver methods	(2.02)	Q30 Gift service	(2.15)
	Q54 Storage info.	(2.02)	Q18 Export freight prices	(2.13)
	Q23 Form validation	(2.01)	Q15 On-line ordering	(2.12)
			Q65 FAQs	(2.08)
			Q69 Contests/give-aways	(2.06)

Table 3: Characteristics that made a considerable contribution to the e-SQ gaps

3.4   Information Gap

Zeithaml et al. [2002] refer to the difference between customer beliefs and managers' understanding of customer beliefs as an information gap. It was determined that, overall, winery managers had a good understanding of customer website requirements. A small (9.6/100) information gap was identified and measured in Davidson's [2005] study. No single characteristic was identified as making a considerable contribution to this information gap. Therefore, the information gap that was identified is made up of numerous small variations from the no gap position. Interestingly, if was in this comparison between customers and managers that the only pair of perfectly related variables occurred. Both the customer and managers' median values for a secure transmission were 4.82 meaning it is valued as very important, and yet this characteristic rates fifth and seventh in the list of contributing characteristics for the design and fulfilment gaps respectively.

3.5   Design Gap

Twenty-eight characteristics made a considerable contribution to the design gap. This is consistent with Davidson's [2005] measured gap score of 39.9/100. It is these characteristics that have the cumulative effect of causing the fulfilment gap, therefore winery managers and their website developers need to make business decisions as to which of these characteristics should be included on their website and which should not be included. A complete closing of the design gap may not be economically feasible; both the costs and potential benefits to the winery need to be considered.

3.6   Fulfilment Gap

Thirty characteristics have been identified as contributing considerably to the fulfilment gap. Again this is consistent with Davidson's [2005] measured gap score of 60. It should be noted that the cumulative effect of smaller variances plus the unmeasured communication gap also contribute to this score.

Zeithaml et al. [2002] claims that complete closure of the information and design gaps, (in addition to the communication gap), by implementing all of the customer requirements, should lead to closure of the fulfilment gap. This indicates completely satisfied customers, which should lead to customer purchases and repurchases, either via the web or through traditional channels.

An assumption that underlies this model is that customer requirements are relevant to the success of the website. This assumption may be challenged on at least two fronts. Firstly, customers may have rated characteristics as important but the presence of those characteristics may make no difference to their purchasing behaviour or other interaction with the winery. Secondly, the purpose of a B2C website is not restricted to increasing sales, it might be to increase employee productivity by decreasing telephone enquiries and customer mail outs.

4   Limitations of the Winery Customer Requirements Framework

The customer and manager survey questions were derived from the initial B2C Website Design Framework. A limitation is that customers and managers were not given an opportunity to report requirements that were not on the survey. It is possible

that customers have requirements that have inadvertently been omitted from the initial framework and therefore from the survey.

The customer survey has been used to determine customer needs. It must be recognised that the respondents were either already on the winery customer lists or were invited to take part by those customers. Since the wineries were all Australian wineries it is likely that most of the respondents were Australian residents and were already familiar with winery information and sales procedures. This may explain why these respondents showed little interest in characteristics such as currency converters and foreign languages, which might be important to overseas customers. Winery managers also rated these characteristics as not important, since they were, quite rightly, predicting how their existing customers would rate the features. Because these characteristics were amongst those that were deleted from the framework the use of the framework is confined to development of B2C websites for existing customers and not for attracting and/or servicing new customers including overseas customers. In order to cater for overseas customers their views would need to be taken into consideration. A means of enlisting overseas survey participants would need to be devised and, where necessary, customer surveys would need to be translated into the languages of the target country.

Winery managers were asked to rate how important they thought it would be to a customer to find the listed characteristics on a winery website. It is possible that they did not think in terms of customer importance but instead rated the characteristics on how important they felt the characteristics were themselves.

A further limitation relates to the inability to calculate a response rate for the customer survey. While all endeavours were taken to obtain a high number of responses, the open-ended nature of the potential customer base (population) makes it impossible to determine if the respondents are representative of the population. This would be a problem no matter how many customer respondents were obtained as no definite upper limit can defined. It can only be recognised that 358 respondents is a large sample.

Also, in regard to customer responses, checks could not be performed to ensure that results were not affected by customer characteristics, as customers were not asked any personal information. This decision was made as a trade off to increase overall response rate. The survey was already lengthy and it was felt making it longer and asking personal questions would increase the bailout rate.

5 Summary and Contribution

This research is based on Zeithaml et al.'s [2002] conceptual model of website design. Zeithaml at al. [2002] proposes that customer website requirements should be the driving force behind B2C website design and that if customer requirements are met, customers will be satisfied and this will ultimately lead to increased sales.

The initial B2C winery website design framework was constructed from information derived from the electronic commerce literature and views offered by professional web developers and other sources. The initial design framework was used to analyse the B2C related content and design aspects of existing winery websites.

Based on the website analysis and further academic research the initial framework was modified. This intermediate framework formed the basis of customer and winery manager surveys that collected information on customer website requirements. The customer survey results were used to further modify the website design framework and to convey customer requirements information to winery managers and web designers.

From a scholarly perspective, this research has contributed to the evolution of website design frameworks. Unlike the higher-level generic nature of frameworks developed in the past this is a low level, industry specific approach. Individual winery managers can use the framework as a reference point for their website designs. The B2C website design framework provides the foundation of a larger project that develops:

1. A mathematical definition of e-SQ gaps.

2. A method for statistical hypotheses testing for the existence of e-SQ gaps.

3. A formula for measuring the size of e-SQ gaps.

From a practical perspective, practitioners can use this design framework as a guide for developing and improving their winery websites.

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Appendix A: Initial Australian winery website design framework

Australian Winery Web Site Design Framework – Categories, Sections, and Elements

Company Information
- ♦ *Company Details*
  - Name
  - Address
  - Phone
  - Fax
  - E-mail
  - Contact name
- ♦ *Geographical Location**
  - Geographical Zone*
- ♦ *Investor Information*
  - Annual financial reports
  - Quarterly financials
  - Aust. Security & Investment Commission filings
  - Analyst reports
  - Stock quotes

Product Information
- ♦ *Wines**
  - Description*
  - Tasting notes*
  - Price
  - Technical notes*
  - Tasting chart*
  - Best seller list
  - Reviews*
    - by consumer
    - by winemaker
    - by professional

Sales and Ordering
- ♦ *On-Site Tasting and Sales**
  - On-site tasting and sales promoted*
  - Opening hours*
  - Cellar address*
  - Location map
- ♦ *External Distributors*
  - Name
  - Location
  - Address
  - Phone
  - Fax
  - E-mail
  - Contact name
  - Web site link
- ♦ *On-Line Orders*
  - Availability
  - Clear procedure
  - Easy to edit/view order
  - Order retained while within site
  - Order retained between sessions
  - Price & freight calculated
  - Export freight prices
  - Currency converter
  - Order confirmation
  - Payment options
    - post
    - phone
    - credit card on-line
  - Secure transaction
  - Form validation

- ♦ *Previous Orders*
  - Previous orders remembered
  - Customer details remembered
- ♦ *Cross Selling / Up Selling*
  - Similar products
  - Complementary products
- ♦ *Customer Service*
  - Accessories
  - Gift boxes
  - Personalised labels*
  - Food and wine packs*
  - Corporate gift service
  - Trade section
  - Flexible purchasing*
    - mixed dozen
    - dozen lots
  - On-line customer service
  - Delivery/order status on-line
  - Customer wish list
  - Surprise bonus/discounts on ordering
  - Loyalty discounts
  - Choice of delivery
- ♦ *Off-Line Orders*
  - Method of ordering
    - phone
    - post / fax
  - Fill in form before printing
  - Prices and freight calculated before printing

Content, Organisation, and Timeliness
- ♦ *Content*
  - Home page
    - name
    - navigation
    - summary
    - search facility
  - Company name in title
  - Page description in title
  - Contact on each page
  - URL on each page
  - Clarity
  - Page length
- ♦ *Organisation*
  - Use of screen space
  - Supports different browsers
  - Supports different monitor sizes
  - Printer friendly
  - Readily located by search engines
- ♦ *Timeliness*
  - Last updated date on each page
  - Download time (< 10 seconds)
- ♦ *Security and Privacy*
  - Security statement
  - Privacy statement

Value-Added Features
- ♦ *News / Information*
  - Press releases
  - Employment opportunities
  - Special offers
  - New product announcements
  - Best buys
- ♦ *General Information & Features*
  - Wine making information*
  - Wine storage information*
  - Wine ageing information*
  - Complementary food*
  - Wine show awards*
  - Virtual tour of winery*
    - video clips
    - 360 degree images
  - Tourism promoted*
  - Accommodation promoted*
  - Restaurant promoted*
  - Foreign languages
  - Contact facility
    - browser based email
    - Web form
  - FAQs
  - Members / wine club*
  - Electronic newsletter
  - Chat room / bulletin board
  - Contests / give-aways

Navigation
- ♦ *Navigation*
  - Breath-emphasising design
  - Depth-emphasising design
  - Breath and depth-emphasising navigation
  - Primary and secondary menus
  - Site structure
  - Site map
  - Search facility
    - local to site
    - external
    - advanced
  - Broken links
  - Error statements
  - Links to home page on every page
  - Links to external Web sites
    - relevant
    - irrelevant
  - Link descriptions meaningful
  - Standard link colours
  - Link titles
  - Use of frames

Aesthetics
- ♦ *Aesthetics*
  - Interesting
  - Aesthetically pleasing
  - Same branding/logos used across site
  - Font sizes not fixed
  - Goals / objectives of website met
  - Text only option
  - Sensational effects / multi media

* denotes an element that is specific to the wine industry

Appendix B: Changes made to initial framework

Initial Framework	Change	Reason	Intermediate Framework
Company Information	No change (N/C) to category heading		**Company Information**
♦ *Company Details*	Section heading removed		
• Name • Address • Phone • Fax • E-mail	Combined	Basic minimum information expected on every website, no need for explicit detail.	• *Q1 Company details*
• Contact name	N/C	Considered important and often not present on websites.	• *Q2 Contact person*
♦ *Geographical Location*	Section heading removed		
• Geographical Zone	Name change	Less ambiguous.	• *Q3 Winery region*
♦ *Investor Information*	Section heading removed		
• Annual financial reports • Quarterly financials • Aust. Security & Investment Commission filings • Analyst reports • Stock quotes	Combined	Only applicable to public companies (the minority), they should know what they want to give to investors, therefore less detail needed.	• *Q4 Investor info.*
Product Information	N/C to category heading		**Product Information**
♦ *Wines*	Section heading removed		
• Description • Tasting notes	Combined	Less ambiguous, not enough difference between the two.	• *Q5 Wine description*
• Price	Divided	The need for accommodate for smaller quantities	• *Q6 Bottle price* • *Q7 Case price*

• Technical notes
• Tasting chart
• Best seller list
• Reviews
  - by consumer
  - by winemaker
  - by professional
	N/C		• *Q8 Technical notes*
			• *Q9 Tasting chart*
			• *Q10 Bestseller list*
			• *Q11a Review-winemaker*
			• *Q11b Review-professional*
			• *Q11c Review-consumer*

Sales and Ordering	Divided into four categories	Elimination of sections created a large category that needed subdivision.	**On-Site Tasting and Sales/External Distributors** (1st of 4 new categories)
♦ *On-site Tasting and Sales*	Section heading removed		
• On-site tasting and sales promoted	Deleted	If hours, address, and map are given then it is promoted. No need for a separate item.	
• Opening hours	N/C		• *Q12 Cellar door hours*
• Cellar address • Location map	Combined	A map incorporates an address, no need for two elements.	• *Q13 Cellar door map*
♦ *External Distributors*	Section heading removed		
• Name • Location • Address • Phone • Fax • E-mail • Contact name • Web site link	Combined	No need for explicit details	• *Q14 External distributor details*
♦ *On-Line Orders*	Section heading removed		**On-Line Orders** (2nd of 4 new categories)
• Availability	Name change	Less ambiguous	• *Q15 On-line ordering*
• Clear procedure • Easy to edit/view order	Deleted	Should be standard	•

Initial Framework	Change	Reason	Intermediate Framework
• Order retained while within site • Order retained between sessions	Combined	Simplified	• *Q16 Order retained between session and within site*

• Price & freight calculated
• Export freight prices
• Currency converter
• Order confirmation
• Payment options
  - post
  - phone
  - credit card on-line
• Secure transaction
• Form validation
	N/C		• *Q17 Price and freight calculated*
			• *Q18 Export freight prices*
			• *Q19 Currency converter*
			• *Q20 Order confirmation*
			• *Q21 Payment options*
			• *Q22 Secured transmission*
			• *Q23 Form validation*

♦ *Previous Orders*	Section heading removed		
• Previous orders remembered • Customer details remembered	Combined	Simplified	• *Q24 Previous orders remembered*
♦ *Cross Selling / Up Selling*	Section heading removed		
• Similar products	N/C		• *Q25 Similar products suggested*
• Complementary products	Deleted	Less ambiguous	
♦ *Customer Service*	Section heading removed		**5 Customer Service** (3rd of 4 new categories)
• Accessories • Gift boxes • Personalised labels • Food and wine packs	N/C		• *Q26 Accessories* • *Q27 Gift boxes* • *Q28 Personalised labels* • *Q29 Wine and food packs*
• Corporate gift service	Name change	Gift service not necessarily for corporate customers only	• *Q30 Gift service*
• Trade section	Deleted	Not within scope of this study which is contained to B2C.	

• Flexible purchasing
  - mixed dozen
  - dozen lots
			• *Q31 Single bottles*
			• *Q32 Mixed cases*

• On-line customer service	Deleted	Not the type of industry that required urgent/immediate responses to customers	
• Delivery/order status on-line • Customer wish list • Choice of delivery	N/C		• *Q33 Order status on-line* • *Q34 Wish list* • *Q35 Deliver methods*
• Surprise bonus/discounts on ordering • Loyalty discounts	Combined	Simplified	• *Q36 Bonuses and discounts*
♦ *Off-Line Orders*	Section heading removed		**6 Off-Line Orders** (4th of 4 new categories)

• Fill in form before printing
• Prices and freight calculated before printing
• Method of ordering
  - phone
  - email
  - post / fax
	N/C	Slightly reworded to be less ambiguous.	• *Q37 Print out order form*
			• *Q38 Fill in order form before printing*
			• *Q39 Auto price/freight calculations*
			• *Q40 Email orders*
			• *Q41 Phone orders*

Content, Organisation, and Timeliness	N/C to category heading		**7 Content, organisation & timeliness**
♦ *Content*	Section heading removed		

Initial Framework	Change	Reason	Intermediate Framework

• Home page
  - name
  - navigation
  - summary
  - search facility
	Deleted	All sites should have a home page, content is covered elsewhere	

• Company name in title • Page description in title	Combined	Simplified	• *Q42 Title bar name and description*
• Contact on each page • URL on each page	N/C	Slight rewording to be less ambiguous	• *Q43 Contact on every page* • *Q44 Web address on every page*
• Clarity	Deleted	Too ambiguous and judgemental. Specifications for clarity picked up elsewhere	
• Page length	Moved	Moved to aesthetics category – Q81	
♦ ***Organisation***	Section heading removed		
• Use of screen space • Supports different browsers • Supports different monitor sizes • Printer friendly	Deleted	Technical issues, customers can expect this level of service	
• Readily located by search engines	Moved	Moved to navigation category – Q71	
♦ ***Timeliness***	Section heading removed		
• Last updated date on each page • Download time (< 10 seconds)	N/C		• *Q45 Last updated date* • *Q46 10 second download*
♦ ***Security and Privacy***	Section heading removed		•
• Security statement • Privacy statement	Combined		• *Q47 Security and privacy policy*
Value-Added Features	N/C to category heading		**8 Value-added features**
♦ ***News / Information***	Section heading removed		
• Press releases • Employment opportunities • Special offers • New product announcements • Best buys	N/C		• *Q48 Press releases* • *Q49 Employment opportunities* • *Q50 Special offers* • *Q51 New products* • *Q52 Best buys*
♦ ***General Information & Features***	Section heading removed		

• Wine making information
• Wine storage information
• Wine ageing information
• Complementary food
• Wine show awards
• Virtual tour of winery
  - video clips
  - image gallery
  - 360 degree images
			• *Q53 Wine making info.*
			• *Q54 Storage info.*
			• *Q55 Ageing info.*
			• *Q56 Complementary foods*
			• *Q57 Show awards*
			• *Q58 Video clips*
			• *Q59 360 degree images*
			• *Q60 Photographs*

• Tourism promoted • Accommodation promoted • Restaurant promoted	Combined	Tourism includes accommodation and restaurant	• *Q61 Local tourism*

Initial Framework	Change	Reason	Intermediate Framework

• Foreign languages
• Contact facility
  - browser based email
  - Web form
• FAQs
• Members / wine club
• Electronic newsletter
• Chat room / bulletin board
• Contests / give-aways
	N/C		• *Q62 Foreign languages*
			• *Q63 Contact by email link*
			• *Q64 Contact by form*
			  Q65 FAQs
			• *Q66 Wine club*
			• *Q67 Electronic newsletter*
			• *Q68 Chat room/bulletin board*
			• *Q69 Contests/give-aways*

Navigation	N/C to category heading		**9 Navigation**
♦ *Navigation*	Section heading removed		
• Breath-emphasising design • Depth-emphasising design • Breath and depth-emphasising navigation • Primary and secondary menus • Site structure	Deleted	Actual means of navigation is less important, as long as it is clear.	
• Site map	N/C		• *Q70 Site map*

• Search facility
  - local to site
  - external
  - advanced
	Combined	General search facility. External and advanced facilities not important as the majority of users have a favourite search engines and do not use advanced searching correctly.	• *Q71 Search facility*

• Broken links • Error statements	Deleted	It is common sense that users do not want broken links and error statements	
• Links to home page on every page	Deleted	Included under menu/structure – Q82	

• Links to external Web sites
  - relevant
  - irrelevant
	Combined	Simplicity	• *Q72 Relevant external links*

• Link descriptions meaningful	Deleted	Common sense that link descriptions describe the destination	
• Standard link colours	N/C		• *Q73 Standard colours*
• Link titles	Deleted	Rarely used and not necessary if descriptions are meaningful	
• Use of frames	N/C		• *Q74 Frames*
Aesthetics			**10 Aesthetics**
♦ *Aesthetics*	Section heading removed		
• Interesting	Deleted	Too judgemental and ambiguous	
• Aesthetically pleasing	Separated	Too ambiguous, broken down into separate elements	• *Q75 Colourful web pages* • *Q76 Contrasting colours* • *Q77 Text size* • *Q78 Animated or moving objects* • *Q79 Uncluttered pages* • *Q80 Lots of images* • *Q81 Short pages* • *Q85 Short paragraphs* • *Q86 Headings* • *Q87 Bulleted lists* • *Q88 Multiple linked pages*
• Same branding/logos used across site • Font sizes not fixed	N/C	Reworded to simplify	• *Q82 Same menu/structure* • *Q83 Text size not fixed*
• Goals / objectives of website met	Deleted	Subjective, can not tell without knowing the firms objectives.	
• Text only option	Deleted	Obsolete with modern computers	

Initial Framework	Change	Reason	Intermediate Framework
• Sensational effects / multi media	N/C		• *Q84 Sensational effects*

Appendix C – Intermediate Australian winery website framework

1 Company information
- *Q1 Company details*
- *Q2 Contact person*
- *Q3 Winery region*
- *Q4 Investor info.*

2 Product information
- *Q5 Wine description*
- *Q6 Bottle price*
- *Q7 Case price*
- *Q8 Technical notes*
- *Q9 Tasting chart*
- *Q10 Bestseller list*
- *Q11a Review-winemaker*
- *Q11b Review-professional*
- *Q11c Review-consumer*

3 On-site tasting and sales / external distributors
- *Q12 Cellar door hours*
- *Q13 Cellar door map*
- *Q14 External distributor*

4 On-line orders
- *Q15 On-line ordering*
- *Q16 Order retained*
- *Q17 Price and freight calculated*
- *Q18 Export freight prices*
- *Q19 Currency converter*
- *Q20 Order confirmation*
- *Q21 Payment options*
- *Q22 Secured transmission*
- *Q23 Form validation*
- *Q24 Previous orders remembered*
- *Q25 Similar products suggested*

5 Customer service
- *Q26 Accessories*
- *Q27 Gift boxes*
- *Q28 Personalised labels*
- *Q29 Wine and food packs*
- *Q30 Gift service*
- *Q31 Single bottles*
- *Q32 Mixed cases*
- *Q33 Order status on-line*
- *Q34 Wish list*
- *Q35 Deliver methods*
- *Q36 Bonuses and discounts*

6 Off-line orders
- *Q37 Print out order form*
- *Q38 Fill in order form before printing*
- *Q39 Auto price/freight calculations*
- *Q40 Email orders*
- *Q41 Phone orders*

7 Content, organisation & timeliness
- *Q42 Title bar name and description*
- *Q43 Contact on every page*
- *Q44 Web address on every page*
- *Q45 Last updated date*
- *Q46 Less than 10 second download*
- *Q47 Security and privacy policy*

8 Value-added features
- *Q48 Press releases*
- *Q49 Employment opportunities*
- *Q50 Special offers*
- *Q51 New products*
- *Q52 Best buys*
- *Q53 Wine making info.*
- *Q54 Storage info.*
- *Q55 Ageing info.*
- *Q56 Complementary foods*
- *Q57 Show awards*
- *Q58 Video clips*
- *Q59 360 degree images*
- *Q60 Photographs*
- *Q61 Local tourism*
- *Q62 Foreign languages*
- *Q63 Contact by email link*
- *Q64 Contact by form*
- *Q65 FAQs*
- *Q66 Wine club*
- *Q67 Electronic newsletter*
- *Q68 Chat room/bulletin board*
- *Q69 Contests/give-aways*

9 Navigation
- *Q70 Site map*
- *Q71 Search facility*
- *Q72 Relevant external links*
- *Q73 Standard link colours*
- *Q74 Frames*

10 Aesthetics
- *Q75 Colourful web pages*
- *Q76 Contrasting colours*
- *Q77 Text size*
- *Q78 Animated or moving objects*
- *Q79 Uncluttered pages*
- *Q80 Lots of images*
- *Q81 Long pages*
- *Q82 Same menu/structure*
- *Q83 Text size not fixed*
- *Q84 Sensational effects*
- *Q85 Short paragraphs*
- *Q86 Headings*
- *Q87 Bulleted lists*
- *Q88 Multiple linked pages*

Appendix D: Customer and winery manager surveys

Customers and winery managers were asked to rate the importance of the following items on a scale of 1-not important to 5-very important. The questions in parenthesis were asked to winery managers. They are slightly changed from the customer questions to reflect asking the manager their beliefs about customers.

General and product information presented on the website
If you were visiting a winery website, how important is it that the following information is available on the site?
[How important would it be to a customer visiting a winery website to find the following information?]
1. The winery name, address, phone, fax and email
2. Names of people to contact at the winery
3. Winery region (e.g. Barossa, Hunter Valley etc.)
4. Investor information (e.g. financial reports, stock quotes etc.)
5. Detailed description of the wine available
6. Price of the wine by the bottle
7. Price of the wine by the case
8. Technical notes for each wine: (e.g. Analysis: Alc/Vol: 13.5%, pH: 3.54, Acidity: 6.0g/L)
9. Tasting chart (e.g. a chart that clearly shows the intensity, dryness, body, acidity, tannin, oak, and complexity of the wine)
10. Bestseller list (e.g. a list that shows what other customers have been purchasing)
11. Reviews of the wines by:
    a. the wine maker
    b. professionals (show judges, newspaper columnist, etc.)
    c. other consumers
12. Cellar door tasting and sales opening hours
13. Address and map to the cellar door
14. External distributors' details
15. The ability to place orders over the Internet

On-line orders
If orders can be placed over the Internet, how important is it that: [If orders can be placed over the Internet, how important is it to the customer that:]
16. A partially completed order is retained while viewing other pages in the site or another site
17. Price and freight is automatically calculated
18. Export freight prices are provided
19. A currency converter is provided
20. A detailed confirmation of the order is returned immediately upon placing the order
21. Several payment options are made available (i.e. you are not restricted to only paying by credit card over the Internet)
22. Any exchange of information is secure to prevent another party viewing it
23. Forms can not be submitted unless all the required information is present
24. Your details and previous orders are remembered and recalled to facilitate placing subsequent orders
25. Similar products are suggested when placing an order

Additional products and services
How important is it that these products and services are offered: [How important is it to the customer that these products and services are offered:]
26. Accessories such as glassware, bottle openers, and wine-related books
27. Wine in gift boxes
28. Wine with personalised labels (e.g. to celebrate an anniversary)
29. Wine and food packs (e.g. specialised regional foods such as nuts or cheeses)
30. A gift service (e.g. you give the winery a list of recipients' names and addresses and choose a wine, and the winery sends it to them on your behalf)
31. The ability to purchase wine by single bottles, not dozen lots
32. The ability to purchase wine by mixed cases, not a case of all the same variety
33. To be able to check on your order status on-line (i.e. to see when your order was packed and shipped)
34. The provision of a customer wish list (so that you can click on items that interest you and review this list at a later time)
35. To be given a choice of delivery methods
36. To receive bonuses or discounts when ordering

Other ordering methods
How important is it to have other ordering methods such as:
[How important is it to the customer to have other ordering methods such as:]
37. The provision of an order form that can be printed and posted/faxed

38. To be able to fill such a form in before printing it
39. For this form to automatically calculate prices and freight
40. The facility to email orders
41. The facility to take phone orders

Content, Organisation & Timeliness

How important is it to have the following: [How important is it to the customer to have the following:]

42. The company name and description in the title bar (the title bar is the blue bar across the top of your browser window, when you bookmark a page this is what appears in your favourites list)
43. Contact details for the winery on every page of the site
44. The Web address on every page of the site (written on the page itself, not just appearing in the address box)
45. To know when the page you are viewing was last updated
46. To have pages that take no longer than 10 seconds to download
47. A security and privacy policy that clearly states how your personal information will be used and kept confidential (e.g. if you were placing an order, your name, address and credit card information)

Extra features

How important is it to have the following features on a winery website:

[How important is it to the customer to have the following features on a winery website:]

48. Press releases
49. Details of employment opportunities
50. Special offers
51. New products
52. Best buys
53. Wine making information
54. Information on how to store wine
55. Information on which wines will age best
56. Information on complementary foods to eat with different wines
57. Details of awards won at wine shows
58. Video clips of the winery
59. 360 degree images of the winery
60. Photographs of the winery
61. Promotion of local tourism (sights, accommodation, restaurants etc.)
62. Web pages available in foreign languages
63. The facility to contact the winery on-line by email
64. The facility to contact the winery on-line by filling in a form
65. A Frequently Asked Questions (FAQs) section
66. A wine club that provides special offers for members
67. An electronic newsletter
68. A chat room / bulletin board
69. Contests and give-aways

Navigation

How important to you are the following navigational aids:

[How important to the customer are the following navigational aids:]

70. A site map (a page with links to all pages of the website) that shows the pages that you have already visited and the page that you just came from
71. To be able to search the winery site for key words
72. Relevant links to external sites (e.g. links to other wine industry and local tourism/accommodation sites)
73. Use of standard colours for links (i.e. blue for unused links and red for used links)
74. Use of frames (i.e. the division of the screen into areas which can keep the main items in view at all times but also limit what can be seen)

Aesthetics

The following relate to the general look and feel of a web page. Please tell me what you like and do not like about a web page? [The following relate to the general look and feel of a web page. Please tell me what you think the customer likes and does not like about a web page?]

These questions were rated on a scale of 1-Do not like to 5-Really like.

75. Colourful web pages
76. High contrast between the text and the background colour
77. Text size that is not too small (easy to read)
78. Animated or moving objects
79. Cluttered web pages
80. Lots of images
81. Long pages
82. Every page on a site to have the same menu and structure
83. To be able to alter the writing size
84. Sensational effects – (e.g. video clips, multi media presentations, animated images)
85. Short paragraphs

86. No headings
87. Bulleted lists
88. Multiple linked pages

Appendix E – Determination of characteristics that contribute to e-SQ gaps

Characteristics making a considerable contribution to the e-SQ gap.	
Discrepancy:	- Greater than or equal to 3
	- Greater than or equal to 2.5 and less than 3
	- Greater than or equal to 2 and less than 2.5
* Items that were deleted from framework due to customers median < 3	

	Customer Median	Manager Median	Website Frequency	information gap cust. - manager	design gap manager - w/site	fulfilment gap cust. - w/site
1 Company information						
Q1 Company details	4.8	4.92	4.67	0.12	0.25	0.13
Q2 Contact person	3.76	4.12	2.56	0.36	1.56	1.2
Q3 Winery region	4.63	4.68	4.93	0.05	0.25	0.3
Q4 Investor info. *	1.85	1.47	1.12	0.38	0.35	0.73
2 Product information						
Q5 Wine description	4.68	4.71	4.49	0.03	0.22	0.19
Q6 Bottle price	4.65	4.52	3.53	0.13	0.99	1.12
Q7 Case price	4.64	4.5	3.53	0.14	0.97	1.11
Q8 Technical notes	3.05	3	2.19	0.05	0.81	0.86
Q9 Tasting chart	3.73	3.33	1.07	0.4	2.26	2.66
Q10 Bestseller list	3.29	2.66	1.02	0.63	1.64	2.27
Q11a Review-winemaker	3.71	3.93	4.34	0.22	0.41	0.63
Q11b Review-professional	4.01	4.27	1.84	0.26	2.43	2.17
Q11c Review-consumer	3.81	3.5	1.05	0.31	2.45	2.76
3 On-site tasting and sales / external distributors						
Q12 Cellar door hours	4.51	4.73	2.86	0.22	1.87	1.65
Q13 Cellar door map	4.54	4.75	2.68	0.21	2.07	1.86
Q14 External distributor	3.82	3.98	2.14	0.16	1.84	1.68
Q15 On-line ordering	4.36	4.27	2.24	0.09	2.03	2.12
4 On-line orders						
Q16 Order retained	4.25	3.93	1.96	0.32	1.97	2.29
Q17 Price and freight calculated	4.57	4.3	3.03	0.27	1.27	1.54
Q18 Export freight prices	3.35	3.38	1.22	0.03	2.16	2.13
Q19 Currency converter *	2.83	2.94	1.11	0.11	1.83	1.72
Q20 Order confirmation	4.62	4.3	3.54	0.32	0.76	1.08
Q21 Payment options	4.23	4.08	3	0.15	1.08	1.23
Q22 Secured transmission	4.82	4.82	1.86	0	2.96	2.96
Q23 Form validation	4.38	4.44	2.43	0.06	2.01	1.95
Q24 Previous orders remembered	4.13	3.7	1.11	0.43	2.59	3.02
Q25 Similar products suggested	3.07	2.98	1.11	0.09	1.87	1.96
5 Customer service						
Q26 Accessories *	2.41	2.66	1.21	0.25	1.45	1.2
Q27 Gift boxes *	2.89	3.02	1.12	0.13	1.9	1.77
Q28 Personalised labels *	2.48	2.38	1.05	0.1	1.33	1.43
Q29 Wine and food packs	2.62	2.45	1.1	0.17	1.35	1.52
Q30 Gift service	3.17	3.11	1.02	0.06	2.09	2.15
Q31 Single bottles	4.04	3.59	2.35	0.45	1.24	1.69
Q32 Mixed cases	4.65	4.6	4.31	0.05	0.29	0.34
Q33 Order status on-line	4.11	3.43	1.05	0.68	2.38	3.06
Q34 Wish list	3.2	2.89	1.00	0.31	1.89	2.2
Q35 Deliver methods	3.87	3.07	1.05	0.80	2.02	2.82
Q36 Bonuses and discounts	4.36	3.70	1.58	0.66	2.12	2.78
6 Off-line Orders						
Q37 Print out order form	4.02	4.49	2.81	0.47	1.68	1.21
Q38 Fill in order form before printing	3.87	3.9	1.72	0.03	2.18	2.15
Q39 Auto price/freight calculations	4.27	3.98	2.36	0.29	1.62	1.91
Q40 Email orders	4.53	4.46	1.81	0.07	2.65	2.72
Q41 Phone orders	4.32	4.59	1.74	0.27	2.85	2.58
7 Content, organisation, & timeliness						
Q42 Title bar name and desc.	4.00	4.15	2.49	0.15	1.66	1.51
Q43 Contact on every page	3.02	3.55	3.88	0.53	0.33	0.86

	Customer Median	Manager Median	Website Frequency	information gap cust. - manager	design gap manager - w/site	fulfilment gap cust. - w/site
Q44 Web address on every page*	2.76	3.24	1.07	0.48	2.17	1.69
Q45 Last updated date	3.85	3.47	1.68	0.38	1.79	2.17
Q46 10 second download	4.37	4.38	1.37	0.01	3.01	3.00
Q47 Security and privacy policy	4.69	4.46	1.41	0.23	3.05	3.28
8 Value-added features						
Q48 Press releases	3.12	3.74	2.19	0.62	1.55	0.93
Q49 Employment opportunities *	2.34	2.02	1.07	0.32	0.95	1.27
Q50 Special offers	4.36	4.22	1.21	0.14	3.01	3.15
Q51 New products	4.38	4.5	1.86	0.12	2.64	2.52
Q52 Best buys	4.37	4.04	1	0.33	3.04	3.37
Q53 Wine making info.	3.31	3.58	2.12	0.27	1.46	1.19
Q54 Storage info.	3.53	3.32	1.3	0.21	2.02	2.23
Q55 Ageing info.	4.22	3.95	3.04	0.27	0.91	1.18
Q56 Complementary foods	3.57	3.63	2.77	0.06	0.86	0.8
Q57 Show awards	3.67	4.12	3.1	0.45	1.02	0.57
Q58 Video clips *	2.25	2.52	1.02	0.27	1.5	1.23
Q59 360 degree images *	2.25	2.54	1.07	0.29	1.47	1.18
Q60 Photographs	3.21	3.94	1.58	0.73	2.36	1.63
Q61 Local tourism	3.38	3.45	2.06	0.07	1.39	1.32
Q62 Foreign languages *	2.26	2.45	1.09	0.19	1.36	1.17
Q63 Contact by email link	4.4	4.56	3.58	0.16	0.98	0.82
Q64 Contact by form	3.83	4.07	1.67	0.24	2.4	2.16
Q65 FAQs	3.25	2.94	1.17	0.31	1.77	2.08
Q66 Wine club	3.91	3.77	1.49	0.14	2.28	2.42
Q67 Electronic newsletter	3.51	3.81	2.42	0.3	1.39	1.09
Q68 Chat room/bulletin board *	1.98	2.1	1.04	0.12	1.06	0.94
Q69 Contests/give-aways	3.2	2.59	1.14	0.61	1.45	2.06
9 Navigation						
Q70 Site map	3.54	3.24	1.21	0.3	2.03	2.33
Q71 Search	3.88	3.31	1.19	0.57	2.12	2.69
Q72 Relevant external links	3.63	3.58	2.21	0.05	1.37	1.42
Q73 Standard colours	3.63	3.51	2.68	0.12	0.83	0.95
Q74 Frames	3.08	3.16	2.24	0.08	0.92	0.84
10 Aesthetics						
Q75 Colourful web pages	3.48	3.77	3.07	0.29	0.7	0.41
Q76 Contrasting colours	3.83	4.08	3.07	0.25	1.01	0.76
Q77 Text size	4.23	4.45	4.2	0.22	0.25	0.03
Q78 Animated or moving objects*	2.34	2.65	1.32	0.31	1.33	1.02
Q79 Uncluttered pages	4.64	4.6	4.94	0.04	0.34	0.3
Q80 Lots of images *	2.17	2.68	2.93	0.51	0.25	0.76
Q81 Long pages *	1.72	1.77	2.49	0.05	0.72	0.77
Q82 Same menu/structure	3.85	4.01	4.6	0.16	0.59	0.75
Q83 Text size not fixed	3.07	3.15	3.68	0.08	0.53	0.61
Q84 Sensational effects *	2.27	2.58	1.32	0.31	1.26	0.95
Q85 Short paragraphs	3.82	4.08	3.07	0.26	1.01	0.75
Q86 Headings	4.22	4.17	3.07	0.05	1.1	1.15
Q87 Bulleted lists	3.52	3.26	3.07	0.26	0.19	0.45
Q88 Multiple linked pages	3.23	3.09	4.91	0.14	1.82	1.68