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CHAPTER 5. RESEARCH METHODOLOGY

5.1 Introduction

This chapter describes the methodology applied in this study to empirically test the hypotheses derived from the research model as discussed in the previous chapter. In order to test the research hypotheses, this study employed an experiment because of the ability of this method, widely recognised among social and behavioural scientists (Boruch, 2001; Bryman, 1989), to establish cause and effect relationships as proposed in the theoretical model and formalised in the research hypotheses. One of the primary advantages of an experiment is that it allows researchers to manipulate or control variables, and by doing so the influence of extraneous factors can be minimised or eliminated (e.g., Malhotra, Hall, Shaw, and Crisp, 1996; Shaughnessy and Zechmeister, 1994; Zikmund, 1991). This experimental study involved three stages: (1) the development of the instrument, (2) the main experiment, and (3) statistical analysis. This chapter describes these three stages in detail.

This chapter begins with the development of the instrument. Each of the variables in the proposed model was operationalised. The instrument format is discussed. Then, a two-stage pilot testing procedure to refine the measurement instrument and the experimental procedures is discussed. The second stage involved the main experiment in which participants rated their responses to a test Web site. This chapter describes the experiment along with the research design, participants, test Web sites, and

experimental procedure. Finally, statistical techniques for analysing the data gathered from the experiment are discussed.

5.2 Development of the Instrument

Development of the instrument involves three stages: operationalisation of the constructs, instrument design, and the pilot test of the instrument used to measure consumer reactions to corporate Web sites.

5.2.1 Operationalisation of the Constructs in the Model

As discussed in the previous chapter, the research model has eight constructs: Web site structure, Web site content, social presence, perceived usefulness, perceived ease of use, Web literacy, attitude toward the Web site, and revisit intention. This section discusses each of the scale items for measuring the constructs used in this study. The measures were drawn from preliminary research (e.g., Web site structure and content) and existing measurement scales through a review of relevant literature (e.g., social presence, perceived usefulness, perceived ease of use, Web literacy, attitude toward the Web site, and revisit intention). These measures were used for designing a self-report instrument to assess Web site effectiveness.

(1) Predictor Variables

As discussed in Chapter 3, the two predictors in the model, Web site structure (i.e., presentation media used) and Web site content (i.e., the range of functions supported),

were operationalised in terms of dichotomies. For web site structure, the two levels were "hypermedia" (the Web site has multi-media, including moving images, sounds, pop-ups, etc.) and "static image" (the Web site has only text and basic images). For Web site content, the levels were "integrated communication" (all marketing functions are supported by the Web site, including advertising, company/product information, sales promotion, online sales, etc.) and "basic information" (only basic information is provided by the Web site, about the company and its products, as well as contact details).

(2) Moderator Variable

The Web literacy of users (defined as a user's ability to manage the distinctive features of the Web, including hypermedia and interactivity) was measured in terms of the level of web browsing experience and self-assessed capability as determined by 5 questions (each with 7-point summated scales) derived from Raman and Leckenby (1998). In order to assess a self-efficacy belief, an additional item was added to the instrument (see Table 5.1).

Table 5.1 Web Literacy Items and Scales

Item	Response Scale	
	1	7
1. How frequently do you access the Web (e.g., to search for information)?	Never	Extremely frequently
2. How familiar are you with the Web?	Not at all familiar	Extremely familiar
3. How would you rate your level of usage of the Web?	Extremely low	Extremely high
4. How confident are you with your ability to navigate the Web?	Not at all confident	Extremely confident

(3) Mediator Variables

Social presence was defined as a user's feeling that he or she is interacting with other people, and was measured using a 5-item summated scale derived from previous studies (Champness, 1973a; De Greef and Ijsselsteijn, 2000; Short *et al*., 1976). For the purpose of this study, the original measurement scales were adapted to fit the context of the study (Table 5.2).

Table 5.2 Social Presence Items and Scales

Item	Response Scale	
	1	7
1. When exploring this Web site, I felt that I got to know the people in the company.	Strongly disagree	Strongly agree
2. This Web site gives me a realistic impression of the company.	Strongly disagree	Strongly agree
3. When exploring this Web site, it felt like I was in personal contact with people in the company.	Strongly disagree	Strongly agree
4. When exploring this Web site, I felt good about the people in the company.	Strongly disagree	Strongly agree
5. Exploring this Web site was like being in a face-to-face meeting with people in the company.	Strongly disagree	Strongly agree

Perceived usefulness was defined as the degree to which a user believes that using a particular Web site would enhance task performance. Perceived ease of use was defined as the degree to which a user believes that using a particular Web site would be free of effort. For perceived Web site usefulness and ease of use, 5-item summated scales derived from previous studies (e.g., Chau, 1996; Davis, 1989; Moore and Benbasat, 1991; Seddon and Kiew, 1996) were used. Given that the subject in the study were to respond in terms of specific information task, the original scale items were modified to

accommodate this. All items were rated using 1-7 response scale, as shown in the table below (Table 5.3 and 5.4).

Table 5.3 Perceived Usefulness Items and Scales

Item	Response Scale	
	1	7
1. This Web site would help me to search more quickly for information about personal computers to buy.	Strongly disagree	Strongly agree
2. This Web site would improve my search for information when buying a personal computer.	Strongly disagree	Strongly agree
3. This Web site would not make my search for information about personal computers more productive.	Strongly disagree	Strongly agree
4. This Web site would make my search for information about personal computers more effective.	Strongly disagree	Strongly agree
5. Overall, this Web site would be useful for obtaining information about available products when buying a personal computer.	Strongly disagree	Strongly agree

Table 5.4 Perceived Ease of Use Items and Scales

Item	Response Scale	
	1	7
1. Learning to use this Web site was easy for me.	Strongly disagree	Strongly agree
2. I could not easily get this Web site to do what I wanted it to do.	Strongly disagree	Strongly agree
3. This Web site was straightforward and easy to understand.	Strongly disagree	Strongly agree
4. It was easy for me to become skilled at using this Web site.	Strongly disagree	Strongly agree
5. Overall, I found this Web site to be easy to use.	Strongly disagree	Strongly agree

(4) Criterion Variables

Attitude toward the Web site (defined as a predisposition to respond to a Web site as a communication medium or a partner) and revisit intention (defined as a consumer's propensity to revisit a particular Web site) were the criterion variables. First of all, as can be seen from Table 5.5, attitude toward the Web site was measured in terms of a user's overall impression using a 7-item summated scale with items derived from recent Web studies (e.g., Bruner and Kumar, 2000; Choi, 2000; Choi *et al*., 2001; Wu, 1999).

Table 5.5 Attitude Toward the Web Site Items and Scales

Item	Response Scale	
	1	7
1. I think this is a good Web site.	Strongly disagree	Strongly agree
2. I like this Web site.	Strongly disagree	Strongly agree
3. This is an attractive Web site.	Strongly disagree	Strongly agree
4. This is an enjoyable Web site.	Strongly disagree	Strongly agree
5. This Web site is pleasant to use.	Strongly disagree	Strongly agree
6. This Web site is recommendable to my friends.	Strongly disagree	Strongly agree
7. Overall, this is a user-friendly Web site.	Strongly disagree	Strongly agree

The behavioural measure of a user's response to the Web site, revisit intention, was measured in terms of a single 8-point symmetrical propensity scale ranging from "Extremely unlikely" to "Extremely likely in response to the question: "If you were searching for information about personal computers for sale on the Web, how likely is it that you would revisit this Web site?"

5.2.2 Instrument Design

As the measures have already been discussed in Chapter 4, this section explains the instrument format. As shown in Appendix 4, the instrument consisted of three sections: (1) participants' reaction to the Web site, (2) Web experience measures, and (3) participant background information. The first section was developed to obtain measures of the mediator (e.g., social presence, perceived ease of use, and perceived usefulness) and criterion variables (attitude toward the Web site and revisit intention). The second section collected data on the moderator variable (e.g., Web literacy). The final section collected demographic information about the participants.

In order to avoid response bias and acquiescence bias among the subjects, the instrument included both positive and negative items in each of the scales (e.g., Anastasi, 1988; Dillon, Madden, and Firtle, 1993; Guy, Edgley, Arafat, and Allen, 1987; Kerlinger, 1964; Zikmund, 1991).

Those questions were "When exploring this Web site, I did *not* feel good about the people in the company" (for social presence), "This Web would *not* make may search for information about personal computers more productive" (for perceived usefulness), "I could *not* easily get this Web site to do what I wanted it to do" (for perceived ease of use), and "This is *not* a good Web site" (for attitude toward the Web site).

5.2.3 Pilot Test of the Instrument

This section describes the pilot test of the instrument to measure consumer reactions to corporate Web sites, an instrument called the "Web Acceptance Model (WAM) Questionnaire". The development of this questionnaire was part of a larger experimental study investigating the determinants of corporate Web site effectiveness.

(1) Rationale for the Pilot Test

The pilot testing of questionnaires is universally considered to be essential because responses to what may be misunderstood, ambiguous or incomprehensible questions can lead to problems of interpretation in data analysis as well as concerns about instrument validity and reliability (e.g., De Vaus, 1991, Churchill, 1999). Therefore, the pilot testing of the draft questionnaire was an important part of this experimental study (e.g., Straub, 1989; Sethi and King, 1991). The concern was to ensure that the instrument used would be both reliable and valid. The issue of instrument rigour was addressed in two ways. Firstly, this study employed measurement scales that had been used in previous studies and which already had known levels of reliability and validity. Secondly, and responding to the lament of Hunt, Sparkman, and Wilcox (1982, p. 269) that "Despite the generally accepted importance of pretesting, the pretesting process is given short shrift in both the marketing research literature and marketing research practice", this study subjected the initial draft instrument to a two-stage pilot testing procedure.

(2) The Pre-Pilot Test

For the pre-pilot test a panel of 10 "experts", including research students and academics in the disciplines of Marketing and Information Systems at the University of Wollongong, was asked to review the draft questionnaire. Panel members were then interviewed and asked to comment on the questionnaire in terms of its ease of use, comprehensibility, meaningfulness, likely effectiveness, content validity (i.e., that the scale items appeared to measure what they were intended to measure) and overall suitability. As a result of the feedback received, some minor modifications were made (e.g., to individual questions and to the instructions for subjects) and the revised questionnaire was then submitted to the next stage of the pilot test. On the basis of the expert assessment, it was concluded that the measurement scales in the draft questionnaire had an acceptable level of content or face validity.

(3) The Pilot Test

In the second stage, a quantitative approach was used to assess the reliability and validity of the instrument. Although there is no widely agreed upon sample size for a pilot test, between 12 and 30 subjects is generally recommended (e.g., Hunt *et al*., 1982). Therefore, a convenience sample of n = 37 was obtained (through word of mouth and other calls for volunteers at the University) from the population of interest for the study, i.e., university students. Following a pre-defined experimental protocol, the pilot test participants were taken to a testing laboratory and asked to explore a fictitious computer company Web site in terms of a hypothetical task (i.e., to obtain information to help make a decision about a possible personal computer purchase). Personal

computers were chosen as the focus for the experimental task because university students constitute a major market segment for this product, and the hypothetical task was well within the recent experience of most students. A fictitious company Web site was created to avoid any potential confounding effects due to prior knowledge and experience with existing brands (Zhang and Gelb, 1996; Choi, 2000).

Each participant was randomly assigned to one of four variants of the company Web site, where the variants were the four combinations of the Web site structure and Web site content levels (i.e., from a "simple" variant which had only static images and basic information, to a "complex" variant with hypermedia and integrated communication). After completing the information search task at their own pace, participants were then asked to complete the draft questionnaire. When they had done so, they were debriefed on the experiment and given the opportunity to comment on the questionnaire. No problems were reported, and all participants considered that the questionnaire was comprehensible, meaningful and easy to complete. Data from the completed questionnaires was entered into the statistics program SPSS. The data file so created was checked for accuracy, and then analysed to assess the reliability and validity of the piloted draft questionnaire.

(4) Statistical Analysis

Data from the completed questionnaires was entered into a personal computer and statistical analysis was performed using SPSS 11.0 for Windows. Basic frequencies were calculated for descriptive purposes. The validity and internal consistency of the instrument were assessed through a statistical analysis.

The statistical analysis procedure involved three main analyses (e.g., Hair *et al*., 1998). Firstly, a factor analysis was conducted to determine whether each summated scale was unidimensional. In other words, a factor analysis on the multi-item measures was conducted in order to identify whether these items represent only one dimension of a construct or whether there are several dimensions within a set of questions (Anderson, 1987; Gebotys, 2001). This analysis commenced with the creation of a correlation matrix for the items in each scale to ensure that there were a substantial number of significant correlation coefficients in the matrix. The extraction of factors was carried out using Principal Components Analysis. Only factors with eigenvalues of 1.0 or higher were extracted, and this was confirmed with a scree plot. The factorability of the correlation matrices was assessed using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Accuracy and Bartlett's Test of Sphericity (Coakes and Steed, 1999).

Secondly, the construct validity of each scale was assessed by examining the correlations between a total scale score and each of its constituent item scores. To avoid spurious part-whole correlation, the total score was corrected by subtracting an item's score before examining the correlation between it and the total (Doll and Torkzadeh, 1988; Xiao and Dasgupta, 2002). Correlation analysis determined whether scale items were associated with each other.

Thirdly, reliability analysis was conducted to test internal consistency. Reliability refers to the degree which a measure yields consistent results when the same instrument is measured repeatedly. Although there are three different approaches (e.g., the test-retest, alternative (equivalent) forms, and the internal consistency) for assessing reliability, the internal consistency using Cronbach's alpha is the most popular approach (Anastasi,

1988; Aron and Aron, 1994; Guy *et al*., 1987; Kubiszyn and Borich, 1990; Malhotra *et al*., 1996; McDaniel and Gates, 1993; Zikmund, 1991). The internal consistency test was performed only once to a group of subjects.

5.3 The Experiment

5.3.1 Experimental Design

The hypotheses were tested on the basis of a 2 x 2 between subject factorial design (having a total of 4 cells), which allowed all possible combinations and conditions of the Web site design factors, Web site content (integrated communication vs. basic information) and Web site structure (hypermedia vs. static image), as shown in Figure 5.1. Therefore, the experiment investigated not only main effects of Web site content and structure, but also the effect of their interaction. There were three mediating variables: social presence, perceived ease of use, and perceived usefulness. Attitude toward the Web site and revisit intention were proposed as criterion variables. For the experiment, culture (Australian) and motivation (search for information) were held constant (control variables).

Each subject was allowed to navigate only one of the four Web sites. Subjects were randomly assigned to a cell using a Random Number Generator Program (Graziano and Raulin, 1999). As the total sample was 160, the random number table had 40 blocks, each of which contained 4 numbers. The block randomisation ensured that equal numbers of subjects were allocated to each experimental condition.

Figure 5.1 Experimental Design

		Content: Integrated Communication	Content: Basic Information
Structure	Hypermedia	Cell 1 ($n_1 = 40$)	Cell 3 ($n_3 = 40$)
	Static Image	Cell 2 ($n_2 = 40$)	Cell 4 ($n_4 = 40$)

5.3.2 Participants

One hundred and sixty students at the University of Wollongong were recruited for the experiment. Participants were compensated in the form of $15-coupons for their voluntary participation. The participants were composed of 44% undergraduate and 55.6% postgraduate students. 65% of the participants were male and 34.4 % female. The experimental subjects were allocated equally across each of the four treatment cells (n=40), a number widely considered to be adequate for desirable and stable results (e.g., Dominik, 1997; Hair, Anderson, Tatham, and Black, 1995).

With respect to the sample, university students were valid subjects for this study in many respects. First of all, they were major users of the product (a personal computer) and the marketing communication medium (a Web site) being tested in the experiment. In other words, university students are typical consumers for this product and marketing

communication medium. In addition, although there has been much debate on using convenience samples of university students, many scholars have advocated students as valid subjects (e.g., Calder and Tybout, 1999; Chow, 1999). Furthermore, based on the argument suggested by Lynch (1999), it is argued that when a moderator variable (e.g., Web literacy) is an important factor in a model, a homogeneous population (e.g., students) can be a good source of sample subject. In particular, this study concerns the difference of Web literacy, which is mainly influenced by users' experience in navigating Web sites, a total amount of time spent on Web sites, and users' relevance to the Web in accomplishing their task. University students have various homogeneous groups in terms of Web literacy according to their year levels and majors. Therefore, university students are more likely to provide variation in Web literacy (i.e., from low to high).

5.3.3 The Test Web Sites

(1) Product Category and Brand

A personal computer was selected as the product category for the corporate Web sites, because a personal computer is a product high involvement product, which involves intensive information search in purchase decision (e.g., Assael, 1992; Hawkins, Neal, Quester, and Best, 1998). As the experiment was conducted in the context of information search, a personal computer was appropriate to the purpose of the experiment. Moreover, a personal computer is one of the products that actively utilise a Web site as their marketing communication tool. Overall, a personal computer was a proper product category for this study.

A fictitious brand name (Unibel) was developed in order to control for any brand effect, which comes from the prior evaluation and attitudes of subjects towards a familiar brand name (e.g., Choi *et al*., 2000; Johnson and Eagly, 1989; Zhang and Gelb, 1996). By using just a single product category and brand, this study tried to eliminate any potential confounding effects of product-category and brand name on the experiment.

(2) Design of the Test Web Sites

Based upon the preliminary research, four-types of Web sites (Unibel 1 to Unibel 4) were created with technical support from three Web site design experts. Based on an extensive analysis of computer manufacturers' Web sites, common message and presentation formats were extracted and applied to the test sites. The use of Microsoft Front Page 2000 allowed easy creation of the Web pages. As shown in Figure 5.2, the Web sites were manipulated into four different versions in a consistent and valid way. Unibel-1 was the most complex type as a combination of "integrated communication" and "hypermedia" types, which included moving images, various content items, brief text, and hyperlinks. Unibel-2 was a mixture of "integrated communication" and "static image". Hence, Unibel-2 is different from Unibel-1 in that it utilised static images and full text. On the other hand, Unibel-3 contained moving images but very limited information content. Finally, Unibel-4 was the simplest type, which used static images and had less information content. Each type used exactly the same messages and images. As other design elements of the Web sites could cause confounding effects, the same colour, layout, typeface, and font size were used in each Web site. Only the use of

content type and hypermedia were manipulated while other design factors were held constant.

Figure 5.2 Design of Test Web Sites

Structure	Content: Integrated Communication	Content: Basic Information
Hypermedia	**Unibel-1** Moving image Internal link Various content Brief text External link	**Unibel-3** Moving image Internal link Less content Brief text External link
Static Image	**Unibel-2** Static image Various content Full text External link	**Unibel-4** Static image Less content Full text External link

In this study, the Web site content and structure types were derived empirically and had clear criteria. However, to verify the differences between stimuli, the test Web sites were pre-tested with two panel groups: (1) a group of teaching staff in the discipline of Marketing (5 people) and (2) research students in the discipline of Marketing and Information Systems (7 people). Based on the interviews with these panel groups, which confirmed the difference among stimuli, the final Web sites were created. The specific variations of the test Web sites were as follows.

Unibel-1 included dynamic hypermedia elements (e.g., a moving logo, moving images, moving text, flickering buttons, mouse off images, sound, a pop-up menu, and a drop down menu) and various content pages (e.g., about us, products, consumer service, hot to buy, and site map). This Web site had diverse feedback facilities such as "Feedback Form" and "Online Order Form." Accordingly, Unibel-1 was a very interactive Web site. Text was presented in brief form, which further could be retrieved by clicking on a drop down menu (e.g., "company news updated" and "products" in Figure 5.3). In addition, when "Special Offers" was clicked, a pop-up window was displayed in the top left hand corner of the screen. One banner advertisement was commonly used across all four Web sites.

Figure 5.3 Unibel-1 Home Page

Please see print copy for Figure 5.3

Unibel-2, like Unibel-1, contained integrated information content (see Figure 5.4). However, even though it had exactly the same images, they were static. Different from Unibel-2, when “Special Offers” was clicked, it did not show a pop-up window, instead, it was connected to the “Products” page. In addition, descriptive text was utilised for information.

Figure 5.4 Unibel-2 Home Page

Please see print copy for Figure 5.4

Unibel-3, similar to Unibel-1, encompassed full hypermedia elements (including a pop-up menu and a pop-up window), brief text, sound, and a site map (see Figure 5.5). However, because it had minimal content pages (e.g., “About us” and “Products”), it did not have the “Feedback Form” or “”Online Order Form”. Therefore, Unibel-3 was limited in terms of interactivity and information.

Figure 5.5 Unibel-3 Home Page

Please see print copy for Figure 5.5

As can be seen in Figure 5.6, Unibel-4 was the simplest Web site. The content pages were only “About us” and “Products”, which provided only necessary information about the company and its products. Images were kept to a minimum.

Figure 5.6 Unibel-4 Home Page

Please see print copy for Figure 5.6

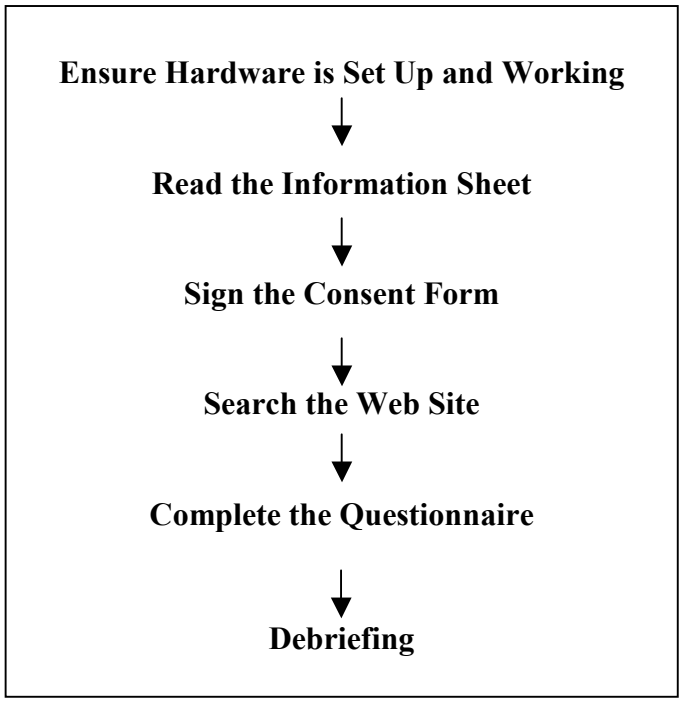
5.3.4 Experimental Procedure

The experiment was conducted in the Activity Theory Usability Laboratory at the University of Wollongong. Two standard Pentium III personal computers (each computer had a 15" monitor, standard keyboard, mouse, and Internet connection) were provided. Internet Explorer 5.0 was used for access to the test Web sites. The test was administered under the same conditions between December 2002 and January 2003.

The experiment was carried out according to a pre-determined protocol. Before the participants arrived, it was ensured that all necessary hardware was set up and working. After the participants were seated, they were asked to read the information sheet and sign the consent form. They were also informed that they had the right to withdraw from the experiment at any time they chose to and their responses would remain strictly confidential. Participants were given a specific task of searching information about the company (Unibel) and its products to purchase a personal computer in the near future.

Then, participants explored one of Unibel's Web sites in their own time to explore the information. If they had any questions or problems, they were able to ask the researcher. After browsing the Web site, they were requested to a complete questionnaire. Finally, after the questionnaire had been completed, a debriefing session followed, where the participants were informed about the study and were given a contact address for further questions and complaints. The overall procedure of the experiment is depicted in Figure 5.7.

Figure 5.7 Experimental Procedure



5.3.5 Data Preparation and Entry

The experimental data were collected between December 2002 and January 2003. There was no missing data for any of the scale items. However, two subjects failed to supply demographic details (i.e., age and gender). As this data was used for descriptive purposes only, all cases were included in the analyses.

Data was entered into a personal computer from the questionnaires in the following way. Firstly, the negatively worded items were reverse scored. Four questionnaire items has been negatively worded in order to minimise response biases. All the items were scored on a scale that ranged from “1” (Strongly Disagree) to “7” (Strongly Agree).

Item was recoded so that a value of “7” on the negatively worded item was re-coded to a value of “1”, a value of “6” was re-coded to a value of “2”, and so on.

Secondly, two coders checked whether any coding errors had been introduced during the data entry process. All coded data entered in the personal computer were double-checked against the original questionnaires and any incorrect codes were corrected. This process was repeated twice until no incorrect information was found. When data entry and checking were completed, statistical analysis was performed using SPSS 11.0 for Windows.

5.4 Analysis

Data analysis involved two distinct phases. The first phase analysed the relationships between Web site typology (i.e., Web site structure and content) and the social interaction measures (i.e., social presence, perceived usefulness, and perceived ease of use). In addition, moderator effects of Web literacy on the relationships between Web site typology and social interaction were included. Next, the second phase involved the analysis of relationships between social interaction (i.e., social presence, perceived usefulness, and perceived ease of use) and attitude toward the Web site, including the relationship between two communication measures: attitude toward the Web site and revisit intention.

In the first phase, a series of variance approaches (i.e., MANCOVA and ANCOVA) were performed to test hypotheses 1 to 5. Based on a 2x2 factorial design, a Multivariate Analysis of Variance test with Web literacy as a covariate (Multivariate

Analysis of Covariance Analysis: MANCOVA) was performed. A MANCOVA was utilised to eliminate bias in the analysis by statistically controlling the influence of an extraneous variable (i.e., Web literacy) on the dependent variables (Coakes and Steed, 1999). Subsequently, when there was an interaction effect of Web site typology on individual variables, a separate univariate Analysis of Covariance Analysis (ANCOVA) was performed. On the other hand, when there was no interaction effect, a separate MANCOVA was conducted.

To test hypotheses 11 and 12, Multiple Regression Analysis and Analysis of Variance (ANOVA) were performed. Based on the Baron and Kenny's (1986) approach, first of all, functions of Web literacy on social interaction measures were examined through Multiple Regression Analysis, which determined the level of Web literacy (i.e., low and high). Then, a 2x2 ANOVA test was conducted to investigate the moderator effects of the two levels of Web literacy.

The variance approaches (e.g., MANCOVA, ANCOVA, and ANOVA) determined whether different levels of the predictor variables (e.g., Web site structure and content) and moderator variable (e.g., Web literacy) were the same with regard to mediator variables (e.g., social presence, perceived ease of use, and perceived usefulness). When there was a significant difference (at a significance level of 0.05) the null hypothesis was rejected and the alternative hypothesis accepted.

In the second phase, a multiple linear regression analysis was used to test hypotheses 6 to 10, while a simple regression analysis was employed to test hypothesis regarding attitude toward the Web site and revisit intention. Linear regression analysis identified

the relationships between the mediator variables (e.g., social presence, perceived ease of use, and perceived usefulness) and the criterion variables (e.g., attitude towards the Web site and revisit intention). Again the significance level was set at 0.05.