

The Role of Interactivity in Information Search on ACG Portal Site

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Abstract. The purpose of this study is to examine the relationships between three dimensions of interactivity (user control, responsiveness and connectedness) and consumers' perceived value composed of utilitarian and hedonic values on ACG resources searching, finally determining the level of overall satisfaction on using interactivity features in ACG portable site service. A total of 430 respondents participated and the usable sample size was 136 of goal-directed users and 180 of experiential users, after the screening process. The results indicate that both perceived utilitarian and hedonic values have a positive effect on satisfaction in the ACG portal site. But goal-directed users more concern about utilitarian than hedonic value, and experiential users more concern about hedonic value than utilitarian.

Keywords: ACG, Perceived interactivity, Goal-directed, Experiential.

1 Introductory

Effective communication with customers is the key to successful business. One of the most important factors for effective communication is known as interactivity (Yoo, Lee, & Park, 2010). In the real world shopping, consumers no longer interact with salespeople or have a direct physical experience of a store and its products. Instead, their experience is mediated through the web, using a graphical display without any face-to-face interaction with the e-vendor. Interactivity is therefore the central to these emerging computer mediated environments.

Novel applications of website interactivity are important to attract and retain online users. High accessibility to Internet technology and popularization of focus media has given rise to various emerging subcultures among the younger generation who constantly seek novelty.

Japanese manga, anime, games, and related consumer electronic devices which target the younger generation not only attract much more Japanese young male enthusiasts (Sangani, 2008) but are also popular in the overseas markets (Niu, Chiang, & Tsai, 2012), especially the ACG (animation, comic, game) users from Asia, whom would searching information to Japanese platform to get first hand resources aggressively.

As Niu et al. (2012) portrayed, in Taiwan, in addition to Japanese culture and life-style have being partly preserved from the time of Japanese colonization, the young peoples' behavior is greatly influenced by Japanese culture due to the powerful marketing strategies and the communication of the Internet and mass media.

In the current investigation we aim to test user perceived interactivity using a Japanese ACG products sharing platform design. ACG products sharing platform is meant to solicit quick input/opinions and trial/demo reels from a web user, which is typically displayed for viewing by other visitors to the site.

Acquire from Wolfenbarger and Gilly's report (2000), a majority of Internet buyers are goal-oriented rather than the being experiential. And in the contrast, they also pointed out, ongoing hobby-type that's why buyers online search engage in experiential browsing.

When pre-purchasing ACG products, dose the information search more hedonic than information search for manufactured goods of utilitarian? Dose choices of ACG products involve considerable emotional significance or instrumental benefits?

The purpose of this study is to examine the relationships between three dimensions of consumers perceived interactivity and perceived value composed of utilitarian and hedonic, finally determining the level of overall satisfaction with ACG portal site service. And find out if there have differences between goal-directed and experiential users in the information search experience.

Based on the prior literature, a model was proposed and structural equation modeling was conducted using Amos to evaluate the fit of the research model. Structural equation modeling is appropriate for this study, because the proposed relationships can be analyzed simultaneously for their associations.

2 Literature Review

2.1 Internet Users' Searching Behavior

Product information seeking often is portrayed as a critical early stage in the consumer buying process (Shim et al. 2001; Hodkinson et al. 2000; Haubl and Trifts 2000). For marketing departments, it is crucial to understand the determinants of information search behavior for designing effective marketing communication.

Obtain from Rowley's research (2000) in online shopping environments, consumers looking for pre-purchase information can be engaged in two modes of seeking activity: browsing and directed search.

After reviewed 5 offline and 4 online focus groups, Wolfenbarger & Gilly (2000) pointed out consumers shop with utilitarian, goal driven motives as well as for experiential motives, such as fun and entertainment; in sum, they shop to acquire products or they shop to shop (Babin, Darden and Griffen 1994; Bloch and Richens 1983; Hirschman 1984; Hoffman and Novak 1996; Schlosser and Kanfer 1999).

Sánchez-Franco & Roldán (2005) suggested that a user is influenced not only by utilitarian motives, but also by a feeling occurring while active on a medium in itself (i.e. flow). Although the influences of flow on attitudes and intentions are higher among experiential users than among goal-directed users, our results suggest that flow

might play an influential role in determining the attitude and intention towards usage within the web-based context.

Drawing these distinctions between goal-directed and experiential behavior is particularly important in online environments, because the experiential process is, for many individuals, as or even more important than the final instrumental result (Hoffman & Novak, 2003).

Table 1. Distinctions Between Goal-Directed and Experiential Behavior

| Goal-Directed | Experiential |
|---------------------------------|---|
| Extrinsic motivation | Intrinsic motivation |
| Instrumental orientation | Ritualized orientation |
| Situational involvement | Enduring involvement |
| Utilitarian benefits/value | Hedonic benefits/value |
| Directed (pre-purchase) search | Non-directed (ongoing) search; browsing |
| Goal-directed choice | Navigational choice |
| Cognitive | Affective |
| Work | Fun |
| Planned purchases; repurchasing | Compulsive shopping; impulse buys |

Source: (Hoffman & Novak, 2003)

Hypothesis 1. Goal-directed and experiential users have different online searching experience on the same ACG portal site.

2.2 Interactivity

The Internet is by definition an interactive medium (Rust & Varki, 1996). An essential part of this interactive ability is the hyperlinks technique (namely, the ability to move from one place to another with a click on the mouse and so reach a new layer of information by a simple movement).

Effective communication with customers is the key to successful business. One of the most important factors for effective communication is known as interactivity (Yoo, Lee, & Park, 2010).

Although there have been many studies on interactivity under various contexts and disciplines, researchers still have mixed views on the concept of interactivity (Yadav and Varadarajan, 2005).

Srinivasan et al. (2002, p. 42) operationalize interactivity as the availability and effectiveness of customer support tools on a website, and the degree to which two-way communication with customers is facilitated.

Interactivity is central to Internet marketing communication. On the Internet, consumers no longer interact with salespeople or have a direct physical experience of a store and its products. Instead, their experience is mediated through the web, using a graphical display without any face-to-face interaction with the e-vendor. Therefore, understanding users' communication behavior in these emerging Computer Mediated Environments is important.

Online interactivity can supplement online decision-making with added product information. Huang's research (2003) showed that interactivity increases control, curiosity, and interest.

Among the diverse online communication mechanisms, interactivity has played a noticeable role in constructing online users' perceptions of Web interfaces (Jiang, Chan, Tan, & Chua, 2010). Perceived interactivity is measured by user evaluations of the interactivity of the evaluated website using the Measures of Perceived Interactivity (MPI) based on previous researches.

McMillan (2005) define interactivity more broadly as the perceived direction of communication, control, and time. Yadav and Varadarajan (2005) define interactivity in the electronic marketplace as "the degree to which computer-mediated communication is perceived by each of the communicating entities to be (a) bi-directional, (b) timely, (c) mutually controllable, and (d) responsive."

Previous research by Lee (2005) has particular relevance to the current work. Lee identified (1) user control, (2) responsiveness, (3) personalization, and (4) connectedness as important components to interactivity in a mobile commerce setting. User control refers to the user's ability to control the information display and content. Responsiveness refers to the site as being able to respond to user queries. Personalization concerns the mobile Internet site that enables the purchase of products and services that are tailored to the user and unique desires. Finally, perceived connectedness refers to whether customers share experiences regarding products or services offered with other visitors to the mobile site. We adopt these three components: user control, responsiveness, connectedness, to fit on the website environment.

Although they call them in different ways, the three key elements are common across the researchers. Therefore, we propose that the three key elements of website interactivity will have a positive effect on user perceived interactivity of online ACG portal site.

Hypothesis 2. Higher levels of user control in the ACG websites will have a positive effect on perceived interactivity.

Hypothesis 3. Higher levels of responsiveness in the ACG websites will have a positive effect on perceived interactivity.

Hypothesis 4. Higher levels of connectedness in the ACG websites will have a positive effect on perceived interactivity.

2.3 Consequence of Perceived Interactivity

The different ways of searching information arguably lead a consumer to browse different kinds of online contents in different kinds of ways, which is expected to have a number of behavioral outcomes, including purchasing (Hoffman & Novak, 2009).

Users visit websites not only for information, but also for entertainment. We identify utilitarian and hedonic two aspects of Web performance from the definition by Huang (2003, p. 429-430): "The utilitarian aspect of Web performance is the evaluation of a website based on the assessment by users regarding the instrumental benefits they derive from its non-sensory attributes. It is related to the performance perception of usefulness, value, and wisdom (Batra & Ahtola, 1990). Utilitarian performance results from user visiting a site out of necessity rather than for recreation; therefore,

this aspect of performance is judged according to whether the particular purpose is accomplished (Davis, Bagozzi, & Warshaw, 1992; Venkatesh, 2000).

The hedonic aspect of Web performance is the evaluation of a website based on the assessment by users regarding the amount of fun, playfulness, and pleasure they experience or anticipate from the site. It reflects a website’s entertainment value derived from its sensory attributes, from which users obtain consummatory affective gratification (Batra & Ahtola, 1990, Crowley, Spangenberg, & Hughes, 1992). A website performs well in the hedonic aspect when users perceive the site to be enjoyable in its own right, apart from any performance consequences that maybe anticipated (Davis et al., 1992; Igbaria, Schian, & Wieckowski, 1994; Venkatesh, 2000)”.

Hypothesis 5. Perceived interactivity of ACG websites will have a positive effect on utilitarian value.

Hypothesis 6. Perceived interactivity of ACG websites will have a positive effect on hedonic value.

2.4 Website Satisfaction

Satisfaction is a post-consumption evaluation based on the comparison between the expected value in the pre-consumption stage and the perceived post-consumption value after the purchase or after the use of services or products (Oliver, 1981; Ravald and Gröroos, 1996). This is especially true for companies selling goods and services on their websites. Customers must be satisfied with their experience with the website or they will not return. A qualitative study of online pharmacy patrons found that website quality attributes of customer service, product cost/availability, and online information systems were associated with customer satisfaction (Yang et al., 2001).

In this study, specific online experiences were significant predictors of e-satisfaction in the following order of strength: interactivity, utilitarian, hedonic, and product information.

Hypothesis 7. Perceived higher levels of utilitarian value in the ACG websites will have a positive satisfaction.

Hypothesis 8. Perceived higher levels of hedonic value in the ACG websites will have a positive satisfaction.

Therefore we propose the research model as fig 1, to examine the relationships between the constructs.

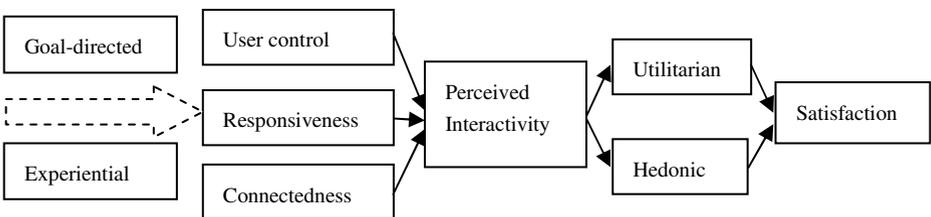


Fig. 1. Proposed model

3 Methodology

3.1 Sample and Data Collection

As the literature points out that online ACG users tend to be younger and to have a higher level of education than conventional consumers (McKnight et al., 2002), the data were collected from a sample of digital multimedia design department students who are currently enrolled at a vocational universities of two sites in north Taiwan.

NICONICO (www.niconico.jp) is a Japanese ACG portal site populated in Asia. This ACG portal website offer users the latest news of Japanese ACG related publishing, sharing their artificial works with VAT (Video Annotation Tool) functions. A fair and open ranking system was trustworthy for users.

A total of 430 volunteered respondents to take part in the study (303 female and 127 male) two groups of goal-directed (score ≤ 21) and experiential (score ≥ 27) were differentiated with their reports score of six questions, the sample size of goal-directed one is 136 the other one is 180. They were all familiar with the Internet and all have ACG portal site visited experience before.

3.2 Measures

The questionnaire consisted of the following five sections: (1) online ACG information searching experience, (2) perceived interactivity, (3) perceived consumption value, (4) satisfaction. Since the population was limited to users who had at least one online ACG searching experience, the first part of the questionnaire was designed to screen out the participants into two different groups.

The evaluation of the information searching experience was measured using a 6-item (Q1_1~Q6_1) two-factor 7-point semantic differential self-report scale to distinct goal-directed or experiential approach the user is (see table 2).

To analyze the relationship among these variables and examine the fitness of the conceptualized framework, this study conducts online ACG portal websites, niconico, as the sharing platform. The operational definition of each variable is tailored to fit the characteristics of online ACG portal sites and shown in the table 2.

The questionnaire is designed in Likert 7 point scale and adjusted according to researches on e-commerce. Participants are asked to fill in the questionnaire and indicate their current situation for each variable item (1 = strong disagreement and 7= strong agreement). The higher score the respondents indicated, the more they agree with these questions. 1 means that the subject disagrees highly with the questions while 7 signifies high agreement.

Table 2. Questionnaire for survey

| (1) Online searching experience Items Based on (Novak, Hoffman, & Duhachek, 2003) | |
|---|--|
| Q1_1. | I visit an ACG portal site, most of the reason by my extrinsic motivation or intrinsic motivation Extrinsic or Intrinsic |
| Q2_1. | I visit an ACG portal site, cause of the reason by its instrumental orientation or my ritualized orientation Instrumental or Ritualized |
| Q3_1. | I visit an ACG portal site, cause of the reason by its situational involvement design or my enduring involvement Situational or Enduring |
| Q4_1. | I visit an ACG portal site, cause of the reason by its utilitarian benefits/value or hedonic benefits/value? Utilitarian or Hedonic |
| Q5_1. | I visit an ACG portal site, cause of the reason by my directed search or non-directed browsing? Directed (pre-purchase) or Non-directed (ongoing) search |
| Q6_1. | I visit an ACG portal site, cause of the reason by its cognitive reason or emotional affect? Goal-directed choice or Navigational choice |
| Construct | Question |
| (2) User Control (Based on Lee, 2005) | UCL1. I was in control over the content of this website that I wanted to see UCL2. I was in control over the information display format, condition when using this website UCL3. I was in control over the order of this web pages that I wanted to browse UCL4. I was in control over the personal homepage of this web site for my revisit next time UCL5. I was in control over the clips sharing what I want |
| (2) Responsiveness (Based on Lee, 2005; Johnson et al., 2006) | RES1. The information shown when I interacted with the site was relevant RES2. The information shown when I interacted with the site was appropriate RES3. The information shown when I interacted with the site met my expectations RES4. The information shown when I interacted with the site was useful RES5. The information feedback instantly when I interacted with the site |
| (2) Connectedness (Based on Lee, 2005) | CON1. Customers share experiences about the product or service with other customers of this website CON2. Customers of this website benefit from the community visiting the website CON3. Customers share a common bond with other members of the customer community visiting the website CON4. Customers share opinions from the video annotation tool of this website CON5. Customers affect wider searching from the online discuss of this website |
| (3) Utilitarian (Based on Yoo et al., 2010) | UTI1. I accomplished just what I wanted to do on this searching trip UTI2. While searching, I found just the item(s) I was looking for UTI3. While searching, I found the information update instantly UTI4. The rankings I found has significant influence |
| (3) Hedonic (Based on Yoo et al., 2010) | HED1. I continued to search online, not because I had to, but because I wanted to HED2. During online searching, I felt the excitement of the hunt HED3. During online searching, I was able to forget my problems HED4. The community discussions I found were interesting |
| (4) Satisfaction (Based on Yoo et al., 2010) | SAT1. Overall of this website searching was good decision SAT2. Overall of this website searching was satisfying SAT3. Overall of this website searching was enjoyable SAT4. Overall of this website searching was easy to find informations SAT5. Overall of this website service was satisfying |

3.3 Model Evaluation and Modification

Structural equation modeling was conducted using Amos 21.0 to evaluate the fit of the research model (Fig. 1). Structural equation modeling is appropriate for this study, because the proposed relationships can be analyzed simultaneously for their associations.

When conducting SEM, researchers often first evaluate the measurement model (whether the measured variables accurately reflect the desired constructs or factors) before assessing the structural model. As noted by Thompson (2004), it makes little sense to relate constructs within an SEM model if the factors specified as part of the model are not worthy of further attention? (p.110). In many cases, problems with SEM models are due to measurement model issues.

Confirmatory factor analysis provided satisfactory support for the six-construct model. The factor loadings associated with each of the six constructs all exceeded 0.50 and were significant at the 0.01 level. And all the value of C.R. in the range of 0.8~1. All the AVE value in the range 0.538~0.902. Only one item of the 'connectedness' construct with large standardized residuals were removed, resulting in the retention of 4 items, with four to five items per construct (see Table 3). Discriminant validity among the six constructs was assessed by comparing the fit with Hair, et al (2009), Fornell and Larcker (1981) suggested value (factor loadings > 0.5, C.R > 0.6, AVE > 0.5, SMC > 0.5) all are passed.

Table 3. The valid analysis of constructs

| Construct | Item | Unstandardized Factor Loadings | S.E. | C.R. (t-value) | P | Standardized Factor Loadings | SMC | C.R. | AVE |
|-----------------------|------|--------------------------------|-------|----------------|-----|------------------------------|-------|-------|-------|
| User control | UCL1 | 1.000 | | | | 0.812 | 0.659 | | |
| | UCL2 | 0.873 | 0.050 | 17.501 | *** | 0.813 | 0.661 | | |
| | UCL3 | 0.784 | 0.054 | 14.640 | *** | 0.693 | 0.480 | 0.851 | 0.538 |
| | UCL4 | 0.672 | 0.059 | 11.411 | *** | 0.557 | 0.310 | | |
| | UCL5 | 0.856 | 0.052 | 16.314 | *** | 0.761 | 0.579 | | |
| Responsiveness | RES1 | 1.103 | 0.047 | 23.244 | *** | 0.872 | 0.760 | | |
| | RES2 | 1.000 | | | | 0.853 | 0.728 | | |
| | RES3 | 1.066 | 0.050 | 21.474 | *** | 0.831 | 0.691 | 0.924 | 0.709 |
| | RES4 | 1.012 | 0.047 | 21.325 | *** | 0.828 | 0.686 | | |
| | RES5 | 1.023 | 0.048 | 21.255 | *** | 0.826 | 0.682 | | |
| Connectedness | CON1 | 1.000 | | | | 0.853 | 0.728 | | |
| | CON2 | 0.945 | 0.045 | 21.161 | *** | 0.845 | 0.714 | 0.902 | 0.697 |
| | CON3 | 0.891 | 0.047 | 19.077 | *** | 0.787 | 0.619 | | |
| | CON5 | 0.994 | 0.046 | 21.400 | *** | 0.852 | 0.726 | | |
| Utilitarian | UTI1 | 1.000 | | | | 0.820 | 0.672 | | |
| | UTI2 | 1.002 | 0.052 | 19.178 | *** | 0.848 | 0.719 | 0.875 | 0.638 |
| | UTI3 | 1.038 | 0.056 | 18.627 | *** | 0.824 | 0.679 | | |
| | UTI4 | 0.822 | 0.054 | 15.110 | *** | 0.695 | 0.483 | | |
| Hedonic | HED1 | 1.000 | | | | 0.837 | 0.701 | | |
| | HED2 | 1.007 | 0.056 | 17.932 | *** | 0.847 | 0.717 | 0.842 | 0.575 |
| | HED3 | 0.900 | 0.069 | 12.994 | *** | 0.620 | 0.384 | | |
| | HED4 | 0.820 | 0.054 | 15.089 | *** | 0.704 | 0.496 | | |

Table 3. (Continued.)

| | | | | | | | | | |
|----------------------|----------------|-------|-------|--------|-----|-------|-------|-------|-------|
| | SAT1 | 1.000 | | | | 0.819 | 0.671 | | |
| | SAT2 | 0.986 | 0.055 | 17.802 | *** | 0.781 | 0.610 | | |
| Satisfaction | SAT3 | 0.960 | 0.052 | 18.357 | *** | 0.800 | 0.640 | 0.893 | 0.625 |
| | SAT4 | 0.910 | 0.056 | 16.239 | *** | 0.727 | 0.529 | | |
| | SAT5 | 1.014 | 0.053 | 19.033 | *** | 0.823 | 0.677 | | |
| | User control | 1.000 | | | | 0.986 | 0.972 | | |
| Interactivity | Responsiveness | 0.873 | 0.050 | 17.377 | *** | 0.930 | 0.865 | 0.965 | 0.902 |
| | Connectedness | 0.895 | 0.050 | 17.810 | *** | 0.933 | 0.870 | | |

The construct of perceived interactivity examined in the second order factor confirmatory analysis is good to fit than examined in first order CFA, see Table 4.

Table 4. The Indicators of Model Fit

| Second order CFA Model | X^2 | <i>DF</i> | X2/DF | GFI | AGFI | CFI | RMSEA |
|---|------------------------|-----------------------|--------|-------|-------|--------|--------|
| 1. Null Model | 4630.909 | 91 | 50.889 | 0.177 | 0.050 | 0.000 | 0.341 |
| 2. First Order Single Factor Analysis | 351.656 | 77 | 4.567 | 0.871 | 0.824 | 0.8853 | 0.091 |
| 3. First Order Three Factor Analysis uncorrelated | 1158.472 | 77 | 15.045 | 0.758 | 0.670 | 0.762 | 0.181 |
| 4. First Order Three Factor correlated | 147.803 | 74 | 1.997 | 0.952 | 0.932 | 0.980 | 0.063 |
| 5. Second order Factor Confirmatory Analysis | 147.803 | 74 | 1.997 | 0.952 | 0.932 | 0.984 | 0.048 |
| suggest value | The smaller the better | The bigger the better | < 5 | > 0.8 | > 0.8 | > 0.9 | < 0.08 |

As researchers try to estimate the value of path coefficients in SEM, Hancock & Nevitt (1999) suggested bootstrapping more than 250 times at least. In this study, we implement bootstrapping 1000 times. In AMOS bootstrap, it offers two methods for estimate, one is Bias-corrected Percentile Method, and other is Percentile Method. Table 5 shows the value that no one exceed 1 from lower to upper level. Thus, discriminant validity was assessed to ensure that a construct differed from others (see table 5).

Table 5. Discriminant Validity of reflective constructs

| Parameter | Estimate | Bias-corrected | | Percentile method | |
|--------------------------------|----------|----------------|-------|-------------------|-------|
| | | Lower | Upper | Lower | Upper |
| Satisfaction <-> Interactivity | 0.857 | 0.786 | 0.919 | 0.784 | 0.919 |
| Utilitarian <-> Interactivity | 0.935 | 0.888 | 0.974 | 0.884 | 0.973 |
| Utilitarian <-> Hedonic | 0.914 | 0.849 | 0.980 | 0.838 | 0.974 |
| Utilitarian <-> Satisfaction | 0.900 | 0.821 | 0.958 | 0.824 | 0.961 |
| Hedonic <-> Satisfaction | 0.922 | 0.866 | 0.980 | 0.857 | 0.971 |
| Hedonic <-> Interactivity | 0.916 | 0.857 | 0.970 | 0.848 | 0.961 |

Finally the model fit provided satisfactory support for the fixed proposed model ($\chi^2 = 714.577$; $df = 317^{***}$, Normed Chi-sqr (χ^2/DF) = 2.254, GFI = 0.087, AGFI = 0.886, RMSEA = 0.054, SRMR = 0.032).

4 Results

The results of the structural equation modeling reveal the following three findings. First, user control, responsiveness, connectedness, the three dimensions of interactivity are positive affect users perceived in online ACG interactive environments, and almost no difference between goal-directed and experiential users (factor loadings of G group 0.984:0.971:0.964, see table 6; E group 0.988:0.789:0.808, see table 7).

Second, this study confirms that perceived interactivity has a significantly positive effect on utilitarian and hedonic value creation in online ACG information searching environments. Almost no difference between goal-directed and experiential users (factor loadings of G group 0.957:0.986, see table 7; E group 0.87:0.71, see table 7).

Finally, both perceived utilitarian and hedonic values have a positive effect on satisfaction in the ACG portal site. But goal-directed users more concern about utilitarian than hedonic value (factor loadings 0.74:0.25, see table 6), and experiential users more concern about hedonic value than utilitarian (factor loadings 0.55:0.38, see table 7).

Table 6. Results of hypotheses tests within goal-directed group

| Construct | | | Standardized Estimate | Unstandardized Estimate | S.E. | C.R. | P |
|----------------|-----|---------------|-----------------------|-------------------------|-------|--------|-------|
| Utilitarian | <-- | Interactivity | 0.957 | 0.946 | 0.088 | 10.714 | *** |
| Hedonic | <-- | Interactivity | 0.986 | 1.013 | 0.093 | 10.948 | *** |
| User control | <-- | Interactivity | 0.984 | 1 | | | |
| Responsiveness | <-- | Interactivity | 0.971 | 1.084 | 0.092 | 11.772 | *** |
| Connectedness | <-- | Interactivity | 0.964 | 1.004 | 0.09 | 11.106 | *** |
| Satisfaction | <-- | Utilitarian | 0.741 | 0.772 | 0.194 | 3.981 | *** |
| Satisfaction | -- | Hedonic | 0.246 | 0.246 | 0.18 | 1.37 | 0.171 |

Table 7. Results of hypotheses tests within experiential group

| Construct | | | Standardized Estimate | Unstandardized Estimate | S.E. | C.R. | P |
|----------------|-----|---------------|-----------------------|-------------------------|-------|-------|-----|
| Utilitarian | <-- | Interactivity | 0.87 | 0.914 | 0.127 | 7.208 | *** |
| Hedonic | <-- | Interactivity | 0.71 | 0.673 | 0.101 | 6.691 | *** |
| User control | <-- | Interactivity | 0.988 | 1 | | | |
| Responsiveness | <-- | Interactivity | 0.789 | 0.749 | 0.106 | 7.053 | *** |
| Connectedness | <-- | Interactivity | 0.808 | 0.717 | 0.105 | 6.859 | *** |
| Satisfaction | <-- | Utilitarian | 0.378 | 0.444 | 0.12 | 3.685 | *** |
| Satisfaction | <-- | Hedonic | 0.548 | 0.713 | 0.142 | 5.027 | *** |

5 Discussion

As Wolfenbarger and Gilly (2000) pointed out, website design and strategy issues should be based on motivations and satisfiers for online buyers. Companies anxious to build experiential features and encourage customers to spend longer times at their site (or increasing "stickiness" as widely encouraged in industry publications) may be overlooking the fact that transaction-oriented customers can build ties to an online business even when they do not spend much time at a site.

Because the Web mixes goal-directed and experiential behavior, our results can be used to develop and evaluate websites in terms of the extent to which they satisfy these two needs.

This research has some limitations that need to be considered. First, the sample has not been proved representative of the general population. Thus, the results must be interpreted with considerable caution. Second, although the goodness-of-indices suggest a good of the model to the data, future research is encouraged to test our instrument across different settings. To do so, researchers are suggested to add more new items to the scale or to delete some of the existing ones, and to use alternate factors applicable to the research setting.

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