The Effects Of Information Richness And Navigation On Value And Behavior Intentions: The Case Of Groupon Taiwan

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Abstract

Online shopping value involving perceived utilitarian value and perceived hedonic value affect consumer behaviour intention. Studies on the effects of Web site characteristics on online group buying behavior through online shopping value are scant. Thus, this study investigates the effects of information richness and navigation of GROUPON Taiwan Web site characteristics on online group buying intention through utilitarian and hedonic value. The results show that information richness has significantly positive effects on both perceived utilitarian value and perceived hedonic value. Navigation also has significantly positive effects on both perceived utilitarian value and perceived hedonic value. Both perceived utilitarian and hedonic value have significantly positive effects on online group buying intention. However, perceived hedonic value has a stronger significant effect on intention than utilitarian value, which indicated that perceived hedonic value has an important role in online group buying intention. Our findings have suggestions for design of online group buying Web site and for future research studies.

Keywords: GROUPON, Online Group Buying, Perceive Value, Information Richness, Navigation.
1 INTRODUCTION

The Internet has experienced recent rapid development, which has dramatically changed people’s lifestyles. People have traditionally purchased goods in stores. However, people are increasingly more purchasing items online because the Internet does not have a time or location restriction, and offers low cost. A survey of the Taiwan Network Information Center (TWNIC) in 2011 revealed that 16.95 million people use Internet in Taiwan, of which 61.23% have online buying experience, and 13.55% have only browsing shopping Web site experience (TWNIC 2011). Thus, Internet has emerged in people’s lives because more people are buying on the Internet.

To attract more customers, many companies have changed their marketing strategy from an entity store to a virtual store, leading to noticeably larger electronic commerce. The more customers who purchase products or services together, the more discount they have. Therefore, online group buying has spread rapidly. For example, a famous online group-buying Web site is Groupon, launched in November 2008 in Chicago (InfoGenra 2011). Groupon represents groups and coupons, and many types of products, including food, travel, spa treatments, and other things. Consumers who buy the same products at one time can buy coupons at a very low price. Because of this successful business model, Groupon has announced the launch of Groupon Singapore, Groupon Taiwan, and other locations (Groupon 2010). Many similar online group buying Web sites have recently emerged in the western and eastern world, such as LivingSocial (http://www.livingsocial.com) and BuyWithMe (http://buywithme.giltcity.com), Gomaji (http://www.gomaji.com) and 17Life (www.17life.com). Thus, the practice of online group buying is spreading worldwide.

Most online group buying Web sites provide a product text, photo, and videos. These group buying Web sites not only provide rich information which could help consumers purchase products and services, but also present a clear navigation bar, such as classifying regional, and search options on the home page. Previous electronic commerce studies focus more on price (Kauffman et al. 2001), incentive discounts (Kauffman et al. 2010), information visibility (Chen et al. 2009), information searching (Wang & Archer 2007), and economies of scale (Chen et al. 2007). However, studies on the effects of information richness and Web site navigation on customer purchase intention, particularly group buying behaviors, are rare. Thus, this paper investigates the effect of Web site characteristics of information richness and navigation, perceived value of utilitarian value and hedonic value, and purchase intentions, on online group buying behavior. The research questions addressed here are: Will information richness and navigation affect consumer intention to online group buying through perceived value? How do critical values, utilitarian, and hedonic values affect consumer intention to online group buying? The rest of this paper is organized as follows. Section 2 describes online group buying, Web site characteristics, and perceived value. Section 3 presents the research model and hypotheses. Section 4 describes the research methodology. Section 5 interprets the results of data analysis. Section 6 discusses the main findings, and the final section presents the conclusion and limitations.

2 LITERATURE REVIEW

2.1 Online Group Shopping

The electronic marketplace attracts many consumers and sellers from different regions due to a large quantity of various services and products. The purpose of electronic commerce is to reduce costs and enhance buyer-response time and service quality. A new electronic business style is online group shopping. This new electronic commerce model provides daily new products or services to group buying Web sites, not only gathering numerous consumers, but also encouraging consumers to invite more friends to join this shopping activity. Customers always have the same needs to obtain a cheaper price. When consumers have sufficient numbers to buy the same product at one time, they can buy products or services on this Web site at a very low price. This commerce model allows sellers to
reduce costs to find additional customers and effectively sell products. Both sellers and consumers receive benefits, generating a win-win situation (Chen et al. 2007; Kauffman et al. 2010; Kauffman et al. 2010; Shen et al. 2002).

Chen et al. (2007) investigated the group buying auction of seller’s pricing strategy. The results show that 1) Group buying auction has a critical mass issue. If the group buying auction Web sites do not reach a critical mass, it is hardly better than competitors and 2) if the seller is risk-seeking, the group buying auction is a better mechanism than fixed pricing. Kauffman et al. (2009) investigated how to produce more participant well-being by the online group-buying auction mechanism on the Internet. The results show that buying together in online group-buying auctions is a win–win strategy. The seller should focus more on the information-sharing mechanism and facilitate the most benefit for members. Kauffman et al. (2010) later investigated consumer behavior in group buying auctions by an Internet-based experimental platform. Their results show that participant perceived financial risk of the mechanism and perceived trust in the auction initiator were affected by seller arguments in past auctions and existing bids. Kauffman et al. (2010) also studied different incentive mechanisms in group buying auctions, and found that sequence-based, time-based, and quantity-based incentives cause consumers to perceive a lack of price fairness and procedural fairness. Compared with time-based and quantity-based incentives, a sequence-based incentive mechanism lowered consumer perception of procedural fairness.

For uncertain group buying behavior, Anand and Aron (2003) investigated the beliefs underlying various market conditions, and provided an analytical response about group buying through mathematical modelling. The results show that the value of group buying relies on the uncertainty of buyer valuations. Wang and Archer (2007) investigated different types of collaboration functionalities of electronic marketplaces. The results show five types of buying groups such as dealer-type, exchange-catalogue, supplier-initiated, exchange-negotiation, and buyer-initiated buying groups. Their results also show the exchange-catalogue model to be the most popular in online group shopping because of fewer burdens on members.

2.2 Web Site Characteristics

Many entity stores have changed their business strategy to e-business because of the rapidly developing Internet. Therefore, to have a comfortable commercial Web site is necessary for consumers who would like to interact with the company. Website quality involves information and speed of navigation, which means the Web site needs to provide content quality accessibility and navigation. A better Web site has greater success (Hernández et al. 2009).

2.2.1 Information Richness

Information richness is defined as the ability of information to change understanding within a time interval (Daft & Lengel 1986). A Web site that provides appropriate product information not only helps to understand a product better that the consumer demands, but also affects purchase decision. This means that abundant information plays an important role in the virtual store. Among information, product comparison is the most influential factor (Daft & Lengel 1986; Oh et al. 2009). Oh et al. (2009) investigated the motivations and intention to use a virtual store. The results show that information richness has positive effect on playfulness and usefulness and indirectly affects consumer adoption of virtual stores. Hernández et al. (2009) investigated the key design factors of a commercial Web site. The result shows that the Web site must provide accurate information, updated and relevant to customer needs. Gattiker et al. (2007) compared email negotiation and Internet reverse auctions of computer-mediated sourcing tools with face-to-face negotiation. They found that information richness affects the trust between the seller and buyer and affects the relationship between trust and information richness by shopping complexity.
2.2.2 Navigation

Web site design of a virtual store is important, including download delay, navigation, Web site content, interactive, and customer enjoyment. All of these factors will affect consumer shopping intention (Elzbieta & Eifler 2008; Éthier et al. 2008). Among these factors, navigation is the critical factor for a transactional Web site because navigation helps customers to purchase products and services smoothly (Elzbieta & Eifler 2008; Hernández et al. 2009). Most consumers browsing an unfamiliar Web site like the navigation to provide a smooth browsing experience. Taylor and England (2006) suggested that navigation include navigation bars, image maps, drop down menus/collapsible menus, search options, and individual hyperlinks. The main objectives of navigation are 1) organize and classify the content, 2) label information, 3) design navigation systems, and 4) help users find information (Hernández et al. 2009). Elzbieta and Eifler (2008) investigated effective designs in online stores. The results show that consumers view Web site effect by Web site characteristics, and Web site navigation is the most important in different product types. Éthier et al. (2008) investigated the effect of Web site interface features on triggering consumer emotions, and the results show the positive effect of navigation on consumer cognition. Hernández et al. (2009) investigated key factors in the design of a commercial Web site, and found that navigation not only provides users comfortable and secure feelings, but also enhances successful transactions.

2.3 Perceived Values

Babin et al. (1994) indicated that values are generally recognized as both utilitarian outcomes and hedonic responses. Utilitarian value focuses on a complete shopping experience, but hedonic value focuses on a shopping experience to obtain enjoyment and fun (Babin et al. 1994; To et al. 2007).

2.3.1 Utilitarian Value

Consumer utilitarian value has been described as task-related and rational. People may collect information out of necessity rather than as recreation, focus on efficient purchases, and achieve their goals in time (Babin et al. 1994; Babin et al. 2005; Chen & Lee 2008; Childers et al. 2001; Overby & Lee 2006; Wang et al. 2007). Thus, utilitarian value reflects various dimensions of effective, helpful, functional, necessary, and practical aspects (Ha & Jang 2010). Babin et al. (2005) investigated consumer service by utilitarian and hedonic value. The results show that utilitarian value positively affects consumer satisfaction and word of mouth (WOM) intentions. Hence, Ha and Jang (2010) investigated the satisfaction and behavioral intentions of consumers by hedonic and utilitarian values in Korean restaurants and in the United States. The results indicate that utilitarian value affects behavioral intentions and consumer satisfaction more than hedonic value. Kim and Han (2011) investigated utilitarian and hedonic values in mobile data services adoption by a theoretical framework. The results show that only utilitarian value affects adoption intention. Wang et al. (2007) also examined consumer affect and shopping value by social cues, the result showing that utilitarian value positively affects consumer patronage intentions.

2.3.2 Hedonic Value

Hedonic value is more subjective and personal than utilitarian value and refers to the shopping process, reflecting emotion, pleasure, and a focus on feeling. A Web site design that arouses consumer emotions, fun, involvement, fantasy fulfilment, and playfulness, will be perceived by the hedonic consumer as a good Web site, and will have greater hedonic value (Babin et al. 1994; Chen & Lee 2008; Ha & Jang 2010; Parboteah et al. 2009). Thus, hedonic value reflects various dimensions of fun, excitement, delight, thrill, and enjoyment (Ha & Jang 2010). Babin et al. (2005) studied consumer service by utilitarian and hedonic value. The results show that hedonic value has positive effect on consumer satisfaction and WOM intentions. Wang and Peng (2011) investigated people participating in online tasks with low payment. The results show that hedonic value positively affects satisfaction and continuance intention. Stoel et al. (2004) investigated consumer beliefs about mall
attributes. The results show that hedonic shopping value positively affects re-patronage intention. Wang et al. (2007) examined consumer affect and shopping value by social cues. The result shows that hedonic value positively affects consumer patronage intentions.

3 RESEARCH MODEL AND HYPOTHESIS

Consumers will evaluate what they give and what they get in their subjective perception when deciding to buy a product/service. Perceived value is an important factor in the consumer purchasing decision process (Dodds & Monroe 1985). Consumers will typically buy a product with high-perceived value. Babin et al. (1994) suggested that shopping value includes utilitarian value and hedonic value. Utilitarian value means that consumers consider what they really need with rational prices before they actually buy something. In contrast, hedonic value means that consumers emphasize feelings during shopping, such as pleasure, fun, and enjoyment (Babin et al. 1994; Chen & Lee 2008; Ha & Jang 2010). Online customers purchase items from Web sites and Web site quality involves information and speed of navigation (Hernández et al. 2009). Daft and Lengel (1986) defined information richness as the ability of information to change understanding within a time interval. A Web site with product information increases consumer understanding of the offered products and reduces product uncertainty to further effect purchase decision (Oh et al. 2009). Web site navigation helps consumers reduce time searching for information and feel more convenience, efficiency, and comfort during browsing (Childers et al. 2001; Hernández et al. 2009). Both information richness and navigation help customers perceive value more easily and quickly when buying a product/service. Based on these reasons, this study focuses on the effects of Web site characteristics (information richness and navigation) on shopping value (perceived utilitarian and hedonic value) and on online group buying intention. Figure 1 shows the research model.

Adequate and clear information enhances customer clarification about products. Thus, group buying Web sites always provide rich information. Product information comparison is the most important because consumers will consider product information from other consumers and virtual stores before making an actual purchase. Therefore, good quality and quantity information could affect perceived usefulness of a virtual store and assist consumers to make a decision and efficiently complete shopping tasks (Babin et al. 1994; Chen & Tan 2004; Oh et al. 2009). Chen and Tan (2004) found that information richness in a virtual store positively affects perceived usefulness of the store. Oh et al. (2009) also found that abundant information positively affects perceived usefulness. The study of (Van der Heijden 2004) indicated that perceived usefulness affects the course-related purposes of Web site use. In other words, users seek utilitarian websites to satisfy the purposes of Web site use. Thus, perceived utilitarian value includes perceived usefulness. Therefore, this study hypothesizes:

H1: Information richness positively affects perceived utilitarian value.
Internet convenience has led to more virtual stores emerging with rich information. Virtual stores that provide enough product information, such as text and photos of a product, increase consumer pleasure and reduce uncertainty and search time. Thus, consumers are attracted to shopping and enjoyment (Jiang & Benbasat 2007). Hedonic value also focuses on emotional response, such as fun and enjoyment (Wang et al. 2007). The study of Oh et al. (2009) found that abundant information positively affects perceived playfulness. Jiang and Benbasat (2007) found that vividness in product presentations enhances consumer shopping enjoyment. Thus, this study hypothesizes:

H2: Information richness positively affects perceived hedonic value.

Navigation functions aim to organize and classify content, label information, and help users find information (Hernández et al. 2009). A good Web site updates content each day and assists consumers quickly complete the goal. If consumers cannot find the products they need, they will not come back to a Web site. The website navigation with a good product classification can help consumers quickly find the products they need and also help them to search products, compare differences between products, or connect to other Web sites. Thus, Web site navigation must have operating efficiency, speed, and usefulness to help customers (Kim et al. 2011). All of these navigation functions reduce search time and effort, provide practical value to customers, and help customers make purchase decisions (Childers et al. 2001; Hernández et al. 2009; Kim et al. 2011). Thus, this study hypothesizes:

H3: Navigation positively affects perceived utilitarian value.

Web site design includes navigation, content, interaction, and enjoyment (Elzbieta & Eifler 2008; Éthier et al. 2008). Navigation is particularly important for commercial Web sites because it assists customers to finish a transaction. When consumers browse an unfamiliar Web site, they tend to use navigation. Vivid navigation, such as graphics and animation, enhances consumer enjoyment of the shopping experience (Childers et al. 2001). Perceived enjoyment, fun, excitement, and delight are included in hedonic value (Ha & Jang 2010). Further, Childers et al. (2001) found that navigation positively affects perceived enjoyment, a type of hedonic value. Therefore, this study hypothesizes:

H4: Navigation positively affects perceived hedonic value.

Utilitarian value is included in shopping value (Babin et al. 1994). Utilitarian consumers focus on shopping efficiency, completing the goal in time (Childers et al. 2001; Wang et al. 2007), convenience, and saving time (Ha & Jang 2010; To et al. 2007). A higher shopping experience value will positively affect behavior intentions (Ha & Jang 2010). Wang et al. (2007) also found that utilitarian value positively affects patronage intentions. Ha and Jang (2010) found that utilitarian value positively affects behavioral intentions, whereas Babin et al. (2005) found that utilitarian value positively affects WOM intentions. Based on previous studies, this study hypothesizes:

H5: Perceived utilitarian value positively affects online group buying intention.

Hedonic value focuses on interesting and entertaining feelings and tends to obtain excitement, fun, and enjoyment from the shopping process, rather than completing the shopping task (Babin et al. 1994; Wang et al. 2007). Consumers who visit a virtual store that provides feelings of pleasure will feel satisfied about this Web site, leading to enhanced hedonic value. Shopping value also affects re-patronage intentions (Stoel et al. 2004). Consumers who have higher perceived value from a previous shopping experience will have positive behavior intentions, and invite friends to join in such a behavior (Babin et al. 2005; Ha & Jang 2010; Wang et al. 2007). Babin et al. (2005) found that hedonic value positively affects WOM intentions. Ha and Jang (2010) found that hedonic value positively affects behavioural intentions. Thus, this study hypothesizes:

H6: Perceived hedonic value positively affects online group buying intention.
4 RESEARCH METHODOLOGY

4.1 Subjects

This study used a two-part online survey to test the proposed theoretical model. The first part consisted of questions measuring five constructs in the research model and the second part included demographic questions about the participants. Participants were recruited via a most popular bulletin board system (BBS), PTT (http://www.ptt.cc) in Taiwan, and Facebook of GROUPON Taiwan. The survey was collected from June 2, 2011, to October 24, 2011. Participants were told that their personal information would be kept confidential. A total of 346 responses were collected. To ensure valid samples, the survey included a question to filter participants having no shopping experience on GROUPON Taiwan. There were 89 invalid respondents due to no shopping experience on GROUPON Taiwan, with 257 usable responses.

4.2 Measurement Development

Five constructs were operationalized as follows. Website navigation functions as an effective search with adequate guide information (Kim et al. 2011). Information richness refers to the ability of information to change understanding within a time interval (Oh et al. 2009). Utilitarian value refers to customer concern about making purchases in an efficient and timely manner to achieve consumer goals with minimal irritation (Wang et al. 2007). Hedonic value refers to emotional arousals of fun and playfulness during the online group shopping process (Chen & Lee 2008). Group shopping intention is a user’s predisposition towards using an online group shopping store in the future (Koo & Ju 2010). Most of the scale items were adapted from extant literature. Only one item was added to information richness construct due to the GROUPON Taiwan phenomenon. All items were measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The drafted questionnaire was sent to two experts of GROUPON Taiwan for review and then revised according to their suggestions. Later, 15 participants who had shopping experience on GROUPON Taiwan were invited to check the semantics, length, and wording, and revised according to their comments. After assuring content validity, a final version of the questionnaire was used to collect data. The measurement items and constructs of navigation come from Kim et al. (2011) and information richness items and definition come from Oh et al. (2009). Perceived utilitarian value was measured using Wang et al. (2007) and perceived hedonic value was measured using Chen and Lee (2008). Finally, items and definition for group buying intention were adapted from Koo and Ju (2010).

5 DATA ANALYSIS AND RESULTS

The data were analyzed using IBM SPSS Statistics 19th and PLS. The SPSS is used to show demographic statistics. PLS is used to examine the measurement model to measure reliability, convergent, and discriminant validity. PLS is also used to examine the structural model to investigate the strength of relationships among the theoretical constructs.

5.1 Demographic Profiles

Descriptive information of the sample for this research indicated that the 257 participants, 68.87% (n=177) were female. Most of the respondents (94.94%) were single (n=244) and most were between 23 and 30 years of age (65.37%, n=168). These respondents mostly bought food (81.3%, n=209) and most information for online group buying comes from the Internet (90.2%, n=232). Descriptive information is shown in Table 1.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Items</th>
<th>Frequencies</th>
<th>Percent (%)</th>
<th>Measure</th>
<th>Items</th>
<th>Frequencies</th>
<th>Percent (%)</th>
</tr>
</thead>
</table>
Table 1. Descriptive Statistics of Respondent Characteristics (n = 257)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>80</th>
<th>31.13</th>
<th>Marry</th>
<th>Single</th>
<th>244</th>
<th>94.94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>177</td>
<td>68.87</td>
<td></td>
<td></td>
<td>Married</td>
<td>13</td>
<td>5.06</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 18 years old</td>
<td>5</td>
<td>1.95</td>
<td>Online hours daily</td>
<td>&lt; 1 hours</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>19–22 years old</td>
<td>63</td>
<td>24.51</td>
<td></td>
<td>1–3 hours</td>
<td>39</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>23–30 years old</td>
<td>168</td>
<td>65.37</td>
<td></td>
<td>3–5 hours</td>
<td>87</td>
<td>33.9</td>
</tr>
<tr>
<td></td>
<td>31–45 years old</td>
<td>19</td>
<td>7.39</td>
<td></td>
<td>5–7 hours</td>
<td>51</td>
<td>19.8</td>
</tr>
<tr>
<td></td>
<td>46–65 years old</td>
<td>2</td>
<td>0.78</td>
<td></td>
<td>&gt; 7 hours</td>
<td>78</td>
<td>30.4</td>
</tr>
<tr>
<td>Education</td>
<td>&lt; High school</td>
<td>6</td>
<td>2.3</td>
<td>Browsing GROUPON Taiwan hours daily</td>
<td>&lt; 0.5 hrs</td>
<td>161</td>
<td>62.7</td>
</tr>
<tr>
<td></td>
<td>Vocational</td>
<td>6</td>
<td>2.3</td>
<td></td>
<td>0.5–1 hrs</td>
<td>81</td>
<td>31.5</td>
</tr>
<tr>
<td></td>
<td>College</td>
<td>159</td>
<td>61.9</td>
<td></td>
<td>1–2 hrs</td>
<td>13</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>Master(above)</td>
<td>86</td>
<td>33.5</td>
<td></td>
<td>&gt; 3 hrs</td>
<td>2</td>
<td>0.7</td>
</tr>
<tr>
<td>Income</td>
<td>&lt; $5,000</td>
<td>52</td>
<td>20.2</td>
<td>Type of goods purchased</td>
<td>Food</td>
<td>209</td>
<td>81.3</td>
</tr>
<tr>
<td></td>
<td>$5,001–$10,000</td>
<td>69</td>
<td>26.8</td>
<td></td>
<td>Costumes</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>$10,001–$20,000</td>
<td>26</td>
<td>10.2</td>
<td></td>
<td>Daily use</td>
<td>14</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>$20,001–$30,000</td>
<td>54</td>
<td>21</td>
<td></td>
<td>Cosmetics</td>
<td>12</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>$30,001–$40,000</td>
<td>34</td>
<td>13.2</td>
<td></td>
<td>3C products</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>$40,001–$60,000</td>
<td>17</td>
<td>6.6</td>
<td></td>
<td>Else</td>
<td>8</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>$60,001–$80,000</td>
<td>4</td>
<td>1.6</td>
<td>Information of online group buying from</td>
<td>Internet</td>
<td>232</td>
<td>90.2</td>
</tr>
<tr>
<td></td>
<td>&gt;$1,000,001</td>
<td>1</td>
<td>0.4</td>
<td></td>
<td>TV</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Shopping experiences</td>
<td>1–3 times</td>
<td>156</td>
<td>60.7</td>
<td></td>
<td>Magazines</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>4–6 times</td>
<td>46</td>
<td>17.9</td>
<td></td>
<td>Friends</td>
<td>21</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>7–9 times</td>
<td>22</td>
<td>8.56</td>
<td></td>
<td>Stores</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>&gt;10 times</td>
<td>33</td>
<td>12.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2 Measurement Model

The measurement model assesses the reliability and validity of this study. Three criteria suggested by Fornell and Larcker (1981) were used to evaluate the measurement scales as follows. (1) All indicator factor loadings should be significant and exceed 0.5, (2) Construct reliabilities should exceed 0.8. And (3) Average variance extracted (AVE) by each construct should exceed the variance due to measurement error for the construct (AVE should exceed 0.5). As shown in Table 2, factor loading, composite reliability, and AVE of this study exceed the recommended values. The discriminant validity also meets the requirement of recommended values shown in Table 3.
### Table 2. Scale Properties of Measurement Model

<table>
<thead>
<tr>
<th>Construct *</th>
<th>NAVI</th>
<th>IR</th>
<th>UTI</th>
<th>HED</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVI</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR</td>
<td>0.71</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTI</td>
<td>0.57</td>
<td>0.57</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HED</td>
<td>0.55</td>
<td>0.55</td>
<td>0.78</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td>0.54</td>
<td>0.56</td>
<td>0.74</td>
<td>0.82</td>
<td>0.85</td>
</tr>
</tbody>
</table>

* NAVI: Navigation; IR: Information Richness; UTI: Utilitarian Value; HED: Hedonic Value; INT: Group Buying Intention

### Table 3. Discriminant Validity

<table>
<thead>
<tr>
<th></th>
<th>IR</th>
<th>UTI</th>
<th>HED</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IR</td>
<td>0.349*** (t=4.897)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTI</td>
<td>0.330*** (t=5.188)</td>
<td>0.349*** (t=4.897)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HED</td>
<td>0.329*** (t=4.861)</td>
<td>0.329*** (t=4.861)</td>
<td>0.577*** (t=8.528)</td>
<td></td>
</tr>
<tr>
<td>INT</td>
<td></td>
<td></td>
<td></td>
<td>0.577*** (t=8.528)</td>
</tr>
</tbody>
</table>

* p<0.05; **p<0.01; ***p<0.001; NAVI: Navigation; IR: Information Richness; UTI: Utilitarian Value; HED: Hedonic Value; INT: Group Buying Intention

### 5.3 Structural Model

The results of the structural model are shown in Fig. 2. The path coefficients and significance of each hypothesized are examined. The examination of significance used the bootstrap procedure (200 resample's) of partial least squares (PLS). All of the hypothesized paths are significant in this study.

*Fig.2. Results of Structural Model*
The model explains 65.4% ($R^2=0.654$) of the variance in group-buying intention; 39.7% ($R^2=0.397$) of the variance in utilitarian value; and 37.1% ($R^2=0.371$) of the variance in hedonic value. Hypothesis H1 examines the effects of information richness on utilitarian value. Information richness was significantly related to utilitarian value ($\gamma= 0.333$, $p<0.001$), supporting H1. Hypothesis H2 examines the effects of information richness on hedonic value. Information richness was significantly related to hedonic value ($\gamma= 0.330$, $p<0.001$), supporting H2. Hypothesis H3 examines the effects of navigation on utilitarian value. Navigation was significantly related to utilitarian value ($\gamma= 0.349$, $p<0.001$), supporting H3. Hypothesis H4 examines the effects of navigation on hedonic value. Navigation was significantly related to hedonic value ($\gamma= 0.329$, $p<0.001$), supporting H4. Hypothesis H5 examines the effects of utilitarian value on group buying intention. Utilitarian value was significantly related to group buying intention ($\beta= 0.273$, $p<0.001$), supporting H5. Hypothesis H6 examines the effects of hedonic value on group buying intention. Hedonic value was significantly related to group buying intention ($\beta= 0.577$, $p<0.001$), supporting H6. In summary, all of the hypotheses in this study were supported.

6 DISCUSSION AND CONCLUSIONS

This research focuses on the effects of information richness and Web site navigation on value and behavior intention. The results of this study provide support for the research model and all of the hypothesized paths are significant. GROUPON Taiwan provides product information in various ways, and vivid information allows consumers to have more imagination and affects consumer attitude (Jiang & Benbasat 2007). The navigation functions assist consumers to find the product discount they need in time, and graphics in the navigation bar enhance interaction between the consumer and Web site and induce positive feelings in consumers. Moreover, the GROUPON Taiwan Web site not only provides usefulness, quality information, and clear navigation function to elicit useful feelings in customers, but also provides an interaction activity for consumers. These helpful feeling and activities enhance customer intention towards online group buying. The findings of this research suggest that GROUPON Taiwan should focus more on the hedonic value of customers.

7 LIMITATIONS

This study suffers two main limitations. First, this research uses the case of GROUPON Taiwan. The subjects were customers who had shopping experiences on GROUPON Taiwan. Thus, the generalization of the results to other online group buying Web sites should exercise caution. Second, each country has its own culture and habits. Because the study involved only GROUPON Taiwan, the results cannot be generalized to all countries. Therefore, future studies should be alert to the limitation of this study and examine other online group buying Web sites or GROUPON in other countries.

References


