Crowdsourcing the Design Process: The Influence of Consumer Characteristics on Participation and Behavioral Intentions in Crowdsourcing

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ABSTRACT

Web 2.0 has changed how consumers interact with the internet and how businesses use the internet to interact with potential customers. It has moved consumers from a passive browsing position to a more active involved stance allowing consumer contribution of many facets. Today crowdsourcing is one trend in Web 2.0 retailers have used to engage with their consumers. Therefore, the purpose of this study was to examine the consumer characteristics that influence consumers to become active participants in crowdsourcing, and how participation influence behavior. In this study the consumer characteristics variables included variety seeking, novelty seeking, desire for uniqueness, fashion involvement, brand consciousness, and social media involvement. Data were collected from 134 US college students at a large south-eastern university using a structured questionnaire. Descriptive statistics, factor analysis, correlation analysis and bi-variate and multiple regression analyses were used for data analysis. The results indicated consumers’ variety seeking tendency is a significant determinant for participation in crowdsourcing, which, in turn, significantly influence purchase intention from the crowdsourcing site and e-WOM intention.
1. Introduction

Web 2.0 has changed how consumers interact with the internet and how businesses use the internet to interact with potential customers. It has moved consumers from a passive browsing position to a more active involved stance allowing consumer contribution of many facets. Technological advances on the web has created new methods and trends for retailers to market, sale, and communicate with consumers. One trend that has emerged from web 2.0 that retailers are trying out is crowdsourcing.

The term crowdsourcing was first introduced in 2006 and is defined as “the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined network of people in the form of an open call (Zhao and Zhu, 2014).” Crowdsourcing allows individuals an opportunity to participate in company functions and decisions allowing the organization and assembly of competence and expertise through pooling individuals’ knowledge from outside the company (Zhao and Zhu, 2014). The individuals who participate in the problem solving process that yield answers are called the crowd. Crowdsourcing companies function by broadcasting their problems to the crowd. The crowd then comes up with solutions for the problem and submits them to the company via a designated method. In peer-vetted crowdsourcing, the crowd will then assess the solutions and rank or vote on the best solutions to the problems, and these top solutions are then accepted by the company. Peer-vetted crowdsourcing is often used when the problems are the need for ideal generation (Brabham, 2008, 2010).

Crowdsourcing has garnered much attention from companies as it has shown and continues to show potential business value (Zhao and Zhu, 2014). Some of the advantages for companies to make use of crowdsourcing are the added flexibility, cost savings, and the collection and harvesting of expertise, information, skills, or labor (Thuan, Antunes, and Johnstone, 2016). However, crowdsourcing only truly occurs when the company reaps a gain usually monetary gains (Howe, 2006). Therefore, many companies have launched campaigns that employ some form of crowdsourcing such as idea generation and consulting (i.e. Starbucks), testing and evaluating new products (i.e. Squadhelp) as well as the design and development of new products (i.e. Threadless). From a participant’s perspective, crowdsourcing can also be advantageous. Participants have the opportunity to work with an organization they might not otherwise have had a chance to work with. This allows participants to increase their exposure and work experience. It also allows individuals to share their pastime with others and in addition their knowledge and expertise with the company. Crowdsourcing participation has
also been shown to give individuals opportunities to display their creative skills and to become part of a community.

Numerous studies (Brabham, 2008, 2010; Thuan et al., 2016; Zhao and Zhu, 2014) on crowdsourcing have been conducted, however, a small number of studies to date have focused on design and product development forms of crowdsourcing. In addition, while many studies have focused on participants intrinsic and extrinsic motivations for becoming involved in crowdsourcing, few have examined the consumer characteristics that would lead one to participate in crowdsourcing activities. Therefore, the purpose of this study was to examine the characteristics that influence consumers to become active participants in crowdsourcing, and how participation influence behavior.

2. Theoretical Framework

Engle, Kollat and Blackwell (EKB) model of consumer behavior (Engel and Blackwell, 1990) focuses on the individual characteristics of consumer decisions and the process to unfold behavior. How a consumer comes to a decision as well as the actual decision, specifically the factors that influence behavioral intention, is the focus of the EKB model. The decision making process normally begins with an individual’s’ environmental influences and their individual differences. These differences determine how an individual’s moves throughout the rest of the decision making process with regards to determining how they search for information, evaluation of alternative products, and behavioral intentions such as whether or not to purchase a product. Individual differences can either be demographic or psychographic variables. These psychographic variables gives light to underlying reasons behind consumer behavior. Individual difference in psychographic variables may explain different purchasing processes. In previous research, how consumer perceive intrinsic and extrinsic motivations and its influence on intention have been researched. However little research has focused on the individual difference in the form of consumer characteristics influence on intentions toward crowdsourcing sites (Engel and Blackwell, 1990; Workman and Cho, 2012).

Crowdsourcing is not a new concept; however, the method to perform crowdsourcing can be deemed innovative. The theory of diffusion of innovation focuses on explaining how, why, and at what pace new ideas and technology spread though cultures. It states that diffusion is a process in which an innovation is communicated through channels over time. This process occurs though five steps: awareness, interest, evaluation, trial, and adoption. By examining a consumers’ intention to participate in crowdsourcing, a consumer is going through the process
of innovation diffusion as to form an intention to participate. This study attempted to examine the consumer characteristics that raise an interest in crowdsourcing sites thus fulfilling the awareness and interest steps in the process. The latter half of the proposed study examined whether the intention to participation in crowdsourcing influence on purchase and e-WOM (Word-of-Mouth) intention then determine how a consumer moves through the last three steps of the innovation diffusion process (Rogers, 2003). In this study the consumer characteristics variables included variety seeking, novelty seeking, desire for uniqueness, fashion involvement, brand consciousness, and social media involvement.

3. Literature Review

3.1 Crowdsourcing

Businesses and other organization host a variety of co-creation activities to allow consumers to become active participants in the product development and value creation process. Crowdsourcing is a type of co-creation, in which business contract out their internal task to a “crowd” on the Internet normally through the form of a contest. Innocentive was the first online platform that facilitated crowdsourcing contest for companies such as Procter and Gamble. A crowdsourcing contest usually starts with the host, the company that desires crowd participation, posting the problem, the requirements, and the time allowed for competition, and the prize for the selected answer. The crowd then submit their suggestions, designs, prototypes, etc. The business can then sort through the ideas and select one that fits their needs best (Ho, 2014; Zheng, 2011).

The focus of the current study is crowdsourcing the design process. To illustrate how crowdsourcing the design process can work for a company, Threadless, an online t-shirt company, was examined. The problem that the company, Threadless, needs the crowd to solve is acquiring images, designs, and art to make unique shirts that will readily sell in an online market. The design ideals are generated through an ongoing online competition. The site allows design submission via Adobe Illustrator and Photoshop as Threadless has the capability to have a downloaded t-shirt template for these two programs. Each competition has different criteria thus using the crowd’s creative intelligence to make a variety of shirts. To be able to participate in the competitions, registration to the site is needed; registered members are also the ones who vet the shirt for a designated time frame to yield only the top rated designs. The crowd approved T-shirts are then manufactured in short production runs and sold on the site (Brabham, 2010). Due to the nature of crowdsourcing contests, consumer participation is vital to the success of
the contest. Intention can change; therefore, consumers intention can be controlled (Engel and Blackwell, 1990); therefore, it is important to study which consumer characteristics can have a strong influence on a consumers intention to participate in crowdsourcing sites (Zheng, 2011).

3.2 Novelty Seeking

Novelty seeking behavior is described as a tendency to seek new products and services and is defined as the desire to try new experiences and products (Hirschman, 1980). Many researchers view novelty seeking behavior as a personality trait varying based on demographic and psychographic profiles. Consumers who display novelty seeking tendencies engage in this desire to seek satisfaction and excitement in their daily life (Park, Yu, and Xin Zhou, 2010). Hirschman (1980) suggest novelty seeking behavior affects a consumer’s product information seeking behavior and will play a role in product adoption. Consumers who display novelty seeking behavior will search for information about new products through various outlets. Thus, a consumers’ level of novelty seeking behavior has a major impact on the decision making process. Therefore, due to the creative nature of design and product development, consumers who display novelty seeking tendency may be more likely to participate on crowdsourcing sites.

**H1: Novelty seeking behavior will positively influence consumers’ intention to participate in crowdsourcing.**

3.3 Variety Seeking

Variety seeking is the desire for change simply for change itself (Sharma, Sivakumaran, and Marshall, 2010). The premise of variety seeking stems from the saturation of repeated consumption of routine products. Therefore, as consumers feel satiated, they will seek more variety in the products they choose (Michaelidou, 2012). Consumers who possess variety seeking tendencies guide their brand choices to fit their desired variety levels. Consumers with high levels of variety seeking tendency will be more likely to switch to an alternative brand or to try a new product. In comparison, low variety seeking tendencies will have more brand loyalty and are more resistant to adopting new products (Michaelidou, 2012). Variety seeking has been classified as a hedonic behavior as it is associated more so with emotions and psychosocial motivations then task and functional benefits. Variety seeking has also been influenced by sensation seeking and exploration tendencies and is often associated with optimum stimulation level (OSL) (Sharma et al., 2010). By participating in crowdsourcing
sites, consumer with higher levels of variety seeking behavior will be able to satisfy their need for change by engaging in new product design and development.

**H2: Variety seeking behavior will positively influence consumer’s intention to participate in crowdsourcing.**

### 3.4 Desire for Uniqueness

Consumers desire to differentiate themselves from others, and they look for goods, services, and/or experiences that few others own. The desire for unique products can be defined as the extent a consumer holds the goal of acquiring and possessing goods, services, or experiences that few others have. This individual difference is considered a goal-oriented state which is said to vary in strength and intensity across individuals based on their levels of differences in their need for uniqueness, status aspiration, and materialistic behavior (Lynn and Harris, 1997). Social theorist believe that people have a need for uniqueness. These individuals find it disagreeable when others show high levels of similarity with themselves thus they search for ways to distinguish from others. The stronger their desire for uniqueness, the more sensitive they are to similarity and the more likely they will desire higher levels of dissimilarity to others. Since one’s belongings can be considered an extension of the self, consumers with stronger desire to differentiate themselves from others can accomplish this by obtaining unique consumer products (Lynn and Harris, 1997). The desire for unique products may cause consumers to make a stronger effort to acquire goods that few others possess. This effort causes an inclination to have and use products that are scarce, innovative, customized, and/or outmoded. It will also increase the tendency of consumers to shop at small, unique retail venues (Lynn and Harris, 1997). Crowdsourcing in the design and product development functions of a business tend to be innovative. In addition, products created from crowdsourcing tend to be limited in quantity thus highlighting the uniqueness value of these items.

**H3: Desire for uniqueness will positively influence consumer’s intention to participate in crowdsourcing.**

### 3.5 Fashion Involvement

Involvement is defined as “a person’s perceived relevance of the object based on inherent needs, values, and interests” (Zaichkowsky, 1985). It is an unobservable state of motivation, arousal or interest, (Rothschild, 1984) and the degree that consumers engage in the consumption process relating to products, advertisements, and purchasing (Broderick and
Mueller, 1999). Fashion involvement is the extent a consumer views fashion activities as an integral part of their life. It is the consumers’ individual difference from complete absorption to total detachment in fashion and related activities (Hourigan and Bougoure). Individuals with high level of fashion involvement are more likely to be interested in fashion as well as place a significant value on clothing items. As a consumers level of involvement increase, the more likely the consumer is to engage in information seeking and to showcase a propensity for innovativeness and opinion leadership toward the product (Handa and Khare, 2013). As crowdsourcing sites allow consumer to generate ideas and opinion toward a specified design task, consumers with high involvement in fashion may be more likely to participate in order to share their opinion on what is created.

**H4: Fashion involvement will positively influence a consumers’ intention to participate in crowdsourcing.**

### 3.6 Brand Consciousness

Brand consciousness is the level of brand orientation or fashion trends that a consumer possesses. It has been defined as the level of importance a consumer places on brand names in the pre-purchase stage of the buying process (Workman and Cho, 2012). Therefore the more brand conscious a consumer is, the more aware they are when shopping online of certain products and trends. Consumer who are brand conscious tend to be aware of brands in ad placement as well as equate high price with high quality. In a study by Nirmala (2012), brand consciousness was proposed to influence online purchase intention for fashion products; although the results were non-significant, it did give rise to the importance of brands in online shopping where familiarity with a product maybe one of the few things a consumer possess as their sense of feel and touch are nonexistent (Park et al., 2010; Workman and Cho, 2012).

**H5: Brand consciousness will positively influence a consumers’ intention to participate in crowdsourcing.**

### 3.7 Social Media Involvement

Social media is the consumption of digital media or Internet that has detoured from the traditional informational media use. Users of social media sites are regular patrons with more than one-third checking profiles daily (Correa, Hinsley, and de Zuniga 2010). Consumers rely on social media pages for product and brand information, and companies active on their social media pages can directly interact with these consumers (Naveed 2012). Involvement is defined
as the degree to which consumers are engaged in the consumption process as it relates to products, advertisements, and purchasing (Broderick and Mueller 1999). Measurement of object involvement has been the focus of numerous studies leading to the agreement that the consumer’s level of involvement is determined by how relevant the object is to the consumer as well as the relationship between the object and the consumer (Michaelidou and Dibb 2006; O’Cass 2000). Involvement research is often linked to behavioral intentions such as purchase intention (Kinley, Josiam, and Lockett 2010), information search behavior (Naveed 2012), and opinion seeking behavior (Kinley, Josiam, and Lockett 2010). Social media has allowed consumers to become more involved with the brand and also to increase their base knowledge of a product before making any purchasing decision (Nardi, Schiano, and Gumbrecht, 2004). Consumers who are highly involved in a brand’s and with their social media are able to interact in a more direct method by participation in crowdsourcing sites. A consumer with high levels of social media involvement who participates in crowdsourcing are able to become involved in another social media community with a brand through crowdsourcing. This is especially important as crowdsourcing sites tend to operate their contest and all other social matters directly thought their own platforms.

**H6: Social media involvement will positively influence consumer’s intention to participate in crowdsourcing.**

### 3.8 Purchase Intention and e-WOM Intention

Purchase intention is the possibility of a consumer purchasing a product. The higher the purchase intention the higher the chance of a purchase being made. Intention is the subjective state of future behaviors. Thus purchase intention is the state in which a consumer intends to acquire a good in the future (Ho, 2014). Electronic word of mouth (e-WOM) deemed one of the most reliable sources of information for consumers, and is viewed as highly credible. It is often an impelling cause to promote participation. E-WOM has been defined as negative or positive statement made by consumers about any product or company that is made via an online platform (Lee, Kim, and Kim, 2012).

**H7: Consumer’s intention to participate in crowdsourcing will positively influence purchase intention from the site.**

**H8: Consumer intention to participate in crowdsourcing will positively influence e-WOM intention.**
4. Methodology

4.1 Survey Description

Nine variables were investigated as well as demographic variables. Each construct was measured on a seven point Likert scale (1= strongly disagree and 7= strongly agree) and were adapted from previous studies. Novelty seeking was measured by four items developed by Assaker and Hallak (2013) and Chang, Wall, and Chu (2006). Variety seeking was measured with three items developed by Ratner, Kahn, and Kahneman (1999). Desire for uniqueness was measure by five items developed by Lynn and Harris (1997). Social media involvement was measured with three items developed by Lim, Al-Aali, Heinrichs, and Lim (2013) and Zaichkowsky (1985). Fashion involvement was measured by four items developed by Handa and Khare (2013) and Sun and Guo (2013). Brand consciousness was measured with three items developed by Nelson and McLeod (2005) and Wang, Siu, and Hui (2004). Participation intention and purchase intention were measure by three items each developed by B. Jin, Gavin, and Kang (2012); S.-A. A. Jin and Phua (2014) and Mathur (1998). Electronic word of mouth intention was measured by three items developed by S.-A. A. Jin and Phua (2014). The demographic variables measured were gender, ethnicity, college, and the most used social media sites.

4.2 Data Collection

The survey was administered to college students in a southeastern university. The data were collected via a survey that was given during class after obtaining instructor consent. The survey took approximately 15 minutes to complete. An example of the crowdsourcing site, Threadless, was given to the respondents in order to get a realistic image of what and how a crowdsourcing site would function (Appendix 1).

A total of 134 respondents participated in the survey. Majority of the respondents (91.8%) were female, and 75.4% were of Caucasian descent. Age was self-reported in this study; majority of the respondents were the ages between 18-22 (95.3%) and only 3.6% were over the age of 22. Facebook (28.8%), Instagram (29.6%), and Pinterest (15.2%) were the top three sites that participants used the most often.
5. Results

Data gathered from the survey was analyzed using the Statistical Package for Social Science (SPSS) program. The data analysis consisted of descriptive statistics, exploratory factor analysis and multiple and bivariate regression analyses. Cronbach’s alpha values were computed to assess the internal consistency aspect of reliability of the scales used in the study and the respective alpha values for all the variables included in the study deemed sufficiently reliable for use, indicating above the threshold of 0.7. In preparation for testing research hypotheses, scores for the variables were computed by summing the items in each scale.

A principal component factor analysis with varimax rotation was conducted on the scales of novelty seeking, variety seeking, and desire of uniqueness in order to ensure that each scales items loaded appropriately. To set the criteria for the factor analysis, factors with eigenvalues greater than 1.0 and items with rotated factor loadings of 0.50 or greater were used (Hair et al. 1998). The results indicated three distinct factors. The first factor describing desire for uniqueness was composed of five items, explaining 39.37% of the variance with an Eigen value of 4.72. Novelty seeking was composed of three items, explaining 16.14% of the variance with an Eigen value of 1.94. Variety seeking was composed of three items with an Eigen value of 1.34, explained 11.13% of the variance. These three factors combined explained 66.6% of the total variance.

5.1 Correlation Analyses

Correlation analysis was implemented to examine the bivariate relationships among the variables (Table 1). Novelty seeking was positively and significantly correlated with desire for uniqueness (r = 0.33, p < .01), variety seeking (r = 0.41, p < .01), fashion involvement (r = 0.20, p < .05), crowdsourcing participation intention (r = 0.25, p < .01), purchase intention (r = 0.25, p < .01), and e-WOM intention (r = 0.24, p < .01). Desire for uniqueness was positively and significantly correlated with variety seeking (r = 0.46, p < .01), fashion involvement (r = 0.39, p < .01), brand consciousness (r = 0.19, p < .05), participation intention (r = 0.26, p < .01), purchase intention (r = 0.30, p < .01), and e-WOM intention (r = 0.28, p < .01). Variety seeking was positively and significantly correlated with fashion involvement (r = 0.19, p < .05), participation intention (r = 0.35, p < .01), purchase intention (r = 0.34, p < .01) and e-WOM intention (r = 0.31, p < .01).

Social media involvement was positively and significantly correlated with fashion involvement (r = 0.22, p < .05) and brand consciousness (r = 0.34, p < .01); however, this variable was not
significantly correlated with any crowdsourcing related variables: crowdsourcing participation intention, purchase intention and e-WOM intention. Fashion involvement was positively and significantly correlated with brand consciousness ($r = 0.44, p < .01$) and e-WOM intention ($r = 0.17, p < .05$), but not with crowdsourcing participation intention or purchase intention. Brand conscious was not significantly correlated with any of the crowdsourcing related variables (participation intention, purchase intention, and e-WOM intention). Crowdsourcing participation intention was significantly correlated with purchase intention ($r = 0.65, p < .01$) and e-WOM intention ($r = 0.60, p < .01$).

Table 1
Correlation Analyses

<table>
<thead>
<tr>
<th>V1: Novelty seeking</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
<th>V6</th>
<th>V7</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2: Desire for uniqueness</td>
<td>1</td>
<td>0.330</td>
<td>**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V3: Variety seeking</td>
<td>0.409</td>
<td>**</td>
<td>0.456</td>
<td>**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V4: Social media involvement</td>
<td>0.014</td>
<td>0.099</td>
<td>0.085</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V5: Fashion involvement</td>
<td>0.204</td>
<td>*</td>
<td>0.383</td>
<td>**</td>
<td>0.189</td>
<td>*</td>
<td>0.221</td>
<td>*</td>
</tr>
<tr>
<td>V6: Brand consciousness</td>
<td>0.089</td>
<td>0.185</td>
<td>*</td>
<td>-0.080</td>
<td>0.265</td>
<td>**</td>
<td>0.444</td>
<td>**</td>
</tr>
<tr>
<td>V7: Participation intention</td>
<td>0.248</td>
<td>**</td>
<td>0.256</td>
<td>**</td>
<td>0.346</td>
<td>**</td>
<td>0.108</td>
<td>0.123</td>
</tr>
<tr>
<td>V8: Purchase intention</td>
<td>0.250</td>
<td>*</td>
<td>0.299</td>
<td>**</td>
<td>0.335</td>
<td>**</td>
<td>0.084</td>
<td>0.120</td>
</tr>
<tr>
<td>V9: e-WOM intention</td>
<td>0.238</td>
<td>**</td>
<td>0.278</td>
<td>**</td>
<td>0.310</td>
<td>**</td>
<td>0.072</td>
<td>0.170</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01

5.2 Regression Analyses for Hypotheses Testing

Multiple regression analysis was performed to evaluate the influence of consumer characteristics (novelty seeking, variety seeking, and desire for uniqueness, fashion involvement, social media involvement, and brand consciousness) on the intention to participate in crowdsourcing sites (H1~H6) (Table 2). The multiple regression analysis between the six consumer characteristics and intention to participate in crowdsourcing sites was significant, $F(6, 127) = 3.659, p = .002$. The results of the regression analysis revealed that variety seeking was the only significant consumer characteristic that significantly influence on the intention to participate in crowdsourcing ($\beta=0.25$, $p < .05$), thus supporting H2. Neither novelty seeking, desire for uniqueness, social media involvement nor brand consciousness was significant in prediction intention to participate in crowdsourcing sites, there rejecting H1, H3, and H4-H6.
Table 2
Multiple Regression Analysis for H1~H6

<table>
<thead>
<tr>
<th>Consumer characteristics</th>
<th>Intention to participate in crowdsourcing sites</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>Novelty seeking</td>
<td>0.114</td>
<td>1.236</td>
<td></td>
</tr>
<tr>
<td>Variety seeking</td>
<td>0.254</td>
<td>2.543*</td>
<td></td>
</tr>
<tr>
<td>Desire for uniqueness</td>
<td>0.094</td>
<td>0.948</td>
<td></td>
</tr>
<tr>
<td>Social media involvement</td>
<td>0.073</td>
<td>0.851</td>
<td></td>
</tr>
<tr>
<td>Fashion involvement</td>
<td>-0.008</td>
<td>-0.081</td>
<td></td>
</tr>
<tr>
<td>Brand consciousness</td>
<td>0.017</td>
<td>0.181</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.147</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05

Bivariate regression analyses were performed to examine the effects of intention to participate in crowdsourcing sites on purchase intention (H7) and e-WOM intention (H8) (Table 3). The regression between intention to participate in crowdsourcing sites and purchase intention was significant, \( F(1,132) = 97.822, p < .01 \), supporting H7. A total of 42.6% variance for purchase intention from the crowdsourcing site was explained by intention to participate in crowdsourcing sites. The regression between intention to participate in crowdsourcing sites and e-WOM intention was also significant, \( F(1,132) = 75.519, p < .01 \), which explained 36.4% of the variance, supporting H8.

Table 3
Bivariate Regression Analysis for H7 and H8.

<table>
<thead>
<tr>
<th>Intention to participate in crowdsourcing sites</th>
<th>Purchase Intention</th>
<th>e-WOM intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>0.652</td>
<td>9.891*</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.426</td>
</tr>
</tbody>
</table>

*p< .01

6. Discussion

This study attempts to fill the gap in literature by examining the characteristics that would influence consumers to become active participants in crowdsourcing and how participation will influence behavior. The framework of this study fits in well with the innovation of diffusion and is based on the EKB model including six consumer characteristics and three behavioral intentions. The results of this study provide suggestions for marketers who are considering engaging in crowdsourcing in the design and product development phase of a product.
The results of the study indicated that, of the six consumer characteristics examined, only variety seeking was a significant predictor of intention to participate in a crowdsourcing site (H2). That is, those who seek variety in their life and shopping activities tend to exhibit greater intention to participate in crowdsourcing. The high levels of variety that crowdsourcing sites offer brings satisfaction to those consumers’ desire for variety seeking and in turn lead to their purchase from the site. While novelty seeking and desire for uniqueness were not significant predictors of intention to participate in crowdsourcing (H1 and H3), correlation analyses indicated that those variable were significantly related to intention to participate in crowdsourcing, purchase intention and e-WOM intention. Besides, those consumer characteristics are closely related to variety seeking tendencies. Thus, novelty seeking and desire for uniqueness cannot be overlooked its influence on crowdsourcing behavior. Intention to participate in crowdsourcing was a strong predictor of both purchase and eWOM intention (H7 and H8). Consumers who display high levels of intention to participate in crowdsourcing may display high intentions to buy the product from the crowdsourcing site. These consumers were also more likely to pass their experiences about crowdsourcing to their friends and acquaintances.

Social media involvement, brand consciousness, and fashion involvement were not found as significant predictors of intention to participate in crowdsourcing (H4-H6). This study did not use a brand in the survey; therefore, consumers who displayed brand consciousness have strong ties to national brands thus are only likely to engage in brand activities rather than the creative process. Surprisingly, despite the creative nature of crowdsourcing, findings of the study indicate that consumer who are highly involved in social media are not likely to participate in crowdsourcing. Instead, social media involvement was closely related to brand consciousness and fashion involvement. This may imply that today’s tech-savvy, fashion conscious consumers want better relationship with brand, rather than being involved in creative process.

One of the limitations of this study involved our use of the visual images, rather than actual site, provided to the respondents for a realistic image of what and how a crowdsourcing site would function. We decided visual image of the crowdsourcing site might not be easy to evaluate its proper function because participants were not required to have prior knowledge or experience of crowdsourcing to be able to participate in this study. In addition, the study did not specify a product category nor a particular brand. By choosing a product category or a brand, there may have been a stronger relationship with consumer characteristics and the intention to participate in crowdsourcing. Future studies should examine different elements of
crowdsourcing as well as different product categories. Future studies should also consider variables not examined or attitudes toward the crowdsourcing process.

References


Appendix 1

A realistic visual image of what and how a crowdsourcing site would function.

Crowd-sourcing is the process in which a company allows a consumer's input on all aspects of product development such as idea generation, marketing, and sales forecasting. In crowd-sourcing, the lines between who is the producer and who is the consumer are blurred. For example, a company runs design competitions for T-shirts via their own social network operated on their website. Consumers are allowed to submit their own idea for t-shirts, vote for the designs they like, comment on the ones they don't like, and purchase winning shirt designs.