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Measuring the success of intervention programmes designed to increase the participation rate by women in computing

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WOULD I USE MY PERSONAL BLOG FOR COMMERCIAL EXCHANGE?

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Abstract

Despite the prevalent use of blog for various personal reasons, there is a paucity of research examining the commercialization of blog. Even though it is possible to forge strong buyer-seller relationships among blogger and readers in a blog social network through collective social interaction, a fundamental prerequisite towards blog commercialization is the blogger's willingness to engage in commercial exchange. Consequently, this paper examines the blogger's decision making process on using his/her blog for commercial exchange. The decision process involves the appraisal of two novel theoretical notions, namely blog-blogger-reader-product similarity (BBRPS) and perceived reader-negative reaction (PRNR). Drawing on the cognitive-motivational-relational theory, we posit that the blogger's emotional responses to the two appraisal factors affect how the blogger copes with the exchange situation. The coping strategy adopted by the blogger in turn increases or decreases exchange intention. Results from an experiment we conducted provide support for this model. Specifically, when BBRPS is high and PRNR is low, the blogger would be inclined towards using his/her blog for commercial exchange. Even when PRNR is high, it is plausible for blogger to persist in the use of his/her blog for commercial exchange as long as the negative emotional barrier is not excessively high.

Keywords: Blogging, Commercial exchange, E-commerce, Social computing.

1 INTRODUCTION

In recent years, we have witnessed a growing interest among firms in harnessing blogs to reach out to blog readers as potential customers. These firms could engage the bloggers to post static advertisement banners, product reviews, products endorsement and products for sale on their blogs. Despite the increasing number of blogs engaging in commercial activities, there is still a paucity of related empirical research (e.g. Walsh 2007). This paper addresses the issue of how and why the resources embedded within the social network of blogger and readers can be harnessed for commercial exchange, i.e., the blogger exchanging a product for monetary returns with a blog reader.

To this extent, the collective social interaction, as manifested in the posting of contents by the blogger and the comments made by the readers in response to these contents, can lead to the formation of strong ties within the blog social network of blogger and readers (Lento, Welser, Gu & Smith 2006). That is, strong ties are characterized by close and frequent interactions (Nahapiet & Ghoshal 1998). In turn, these strong ties are useful towards forging strong buyer-seller relationships (Frenzen & Davis 1990; Marsden & Campbell 1984). However, a fundamental prerequisite towards the commercial utilization of the blog social network is the blogger's willingness to engage in commercial exchange. It is thus important to develop an initial understanding of the blogger's individual perception in this paper. This provides a basis for future research into the commercial viability of the collective blog social network, which includes the buyers', i.e., the blog readers', perspective.

With the above in mind, we propose two theoretical notions of blog-blogger-reader-product similarity and perceived reader-negative reaction that would be relevant to a blogger when he/she is deliberating whether to participate in a commercial exchange. Drawing on the cognitive-motivational-relational theory (Lazarus 1991), we model this deliberation as a decision-making process that generates emotive outcome affecting the blogger's willingness to use his/her blog for commercial exchange.

2 THEORETICAL BACKGROUND

Personal Blog as a Commercial Exchange: A blog serves as a natural user-alike segmentation whereby the blogger and readers converge towards one or more shared interests, which is reflected through the content of the blog postings and comments. This is best represented by two characteristics explicated in the life cycle model of a personal blog (Gurzick & Lutters 2006). First, as a blog progresses from the first stage of non-directed personal storage, i.e., pure posting of daily events and thoughts, towards the later stage of being an established and interactive blog, i.e., readers could post comments and interact with the blogger, the blogger would have developed contents that are targeted towards interacting with the readers, thereby facilitating the formation of blogger-reader relationships. These contents and relationships could serve as the basis to facilitate commercial exchanges. Second, as more bloggers interlink their blogs with the others, they form a blog community (Kumar, Novak & Tomkins 2004). To the extent that blogs provide a conducive environment for the formation of communities (Nardi, Schiano & Gumbrecht 2004), it is posited that they possess even greater potential to expose individual bloggers to larger pool of like-minded bloggers and readers.

With the formation of a blog community, a blogger could pursue the opportunity of exchanging goods, services and money (Balasubramanian & Mahajan 2001). For instance, a philatelic blog could involve the blogger discussing stamp collection; and with the majority of the blog readers themselves being philatelic enthusiasts. Within this blog, both the blogger and the readers could exchange stamps with one another for monetary returns. Indeed, we could see that an economic leveraging attempt through a personal blog is dependent on two contextual factors: 1) the degree to which a blog, its readers and the products are related (i.e., similarity); and 2) the degree to which readers are against commercial activities in a blog.

Blog-Blogger-Reader-Product Similarity: A recurring theme in the personal and relationship selling literature has been the establishment and maintenance of a fruitful long-term buyer-seller relationship (Dion, Easterling & Miller 1995). The seller plays a central role in this relationship by possessing 1) referent power that is built on the perceived attitudinal similarity between the customer and seller; and 2) the ability to attract buyers based on perceived similarity of interests, beliefs, values and personality (Dion et al. 1995). These two factors have been posited to improve sales performance as well as the trust-building process with customers. In relation to our context, the use of blog for commercial exchange could serve as a personal selling process between the blogger and readers. Specifically, the similarity factor within this commercial exchange relationship could provide sufficient motivation for a blogger to participate in the exchange. This view is in accordance with the similarity attraction theory (Byrne 1971) which posits that people prefer to interact with like-minded others. Empirical evidence supporting this paradigm suggests that personality similarity, specifically attitude similarity, could result in positive interpersonal attraction (Singh & Tan 1992). It is reported that peoples are generally more attracted to similar others than to dissimilar others (Chen & Kenrick 2002).

Leveraging on the above line of reasoning, we present the notion of **blog-blogger-reader-product similarity (BBRPS)**. This notion refers to the similarity of the interest-focused product, or category of product (i.e., **product**), with the interest-focused blog content (i.e., **blog**) and interest-focused relationship between the blogger and readers (i.e., **blogger and reader**). The phrase “interest-focused” denotes the shared interest or common topic/theme of the blog. In other words, the blog content and the relationship between the blogger and readers should be closely related to the shared interest of the blog. Moreover, the product to be exchanged on the blog must be congruent with the blog’s shared interest. In the presence of BBRPS, we posit that the blogger should be strongly attracted to the readers and thus more inclined to engage in commercial exchange of the relevant products within the virtual social community revolving around a personal blog.

Perceived Reader-Negative Reaction: Prior research has suggested that as competition in the Internet intensifies, consumers are increasingly being targeted with marketing materials using push-oriented mechanisms (Johnson 1996, pp. 16). Such developments have lead to calls to address the issue of commercialism (for instances, see Johnson & Ambrose 2006). An interesting comment is raised by Donnelly (1996) who believes that the Internet should be divided into different areas where advertising and commercial traffic is acceptable and those where they are not. Just how negative could a perception on commercialism be? Some studies have advocated that a consumer’s attitude to commercialization could affect buying behavior (Mortelmans & Damen 2001). For instance, we could encounter a cultural critic which denounces the gift-giving practice during Christmas as “nothing more than materialism and unlimited consumption which are promoted under the veil of traditional values and habits” (Mortelmans & Damen 2001, pp. 157). In relation to our context, we believe that the negative perception of Internet commercialism could impede the use of personal blogs for commercial exchanges by dissuading readers from continuing to read these blogs.

Leading on from this line of reasoning, we posit a second theoretical notion of **perceived reader-negative reaction (PRNR)** which is defined as the blogger’s perception regarding the negative reaction of the blog readers in response to the use of the blog for commercial exchange. It is unlikely that a blogger would perceive reader-negative reaction as positive. Instead, we are more interested in the strength of the negative perception. Specifically, reader-negative reaction could manifest in the form of negative comments left on the blog suggesting non-purchase intention and a boycott of the blog. If the blogger perceives these comments as sufficient threats to the blog readership, i.e., the virtual social community that his/her blog is painstakingly building, it is conceivable that the blogger would sacrifice any thought of commercialism to retain the community.

Cognitive-Motivational-Relational Theory: Our present study adopts a decisional process model to trace the decision steps taken by the blogger when evaluating whether to continue to exchange. A decision scenario-based experimental approach (commonly used in the decision making literature such as Payne, Bettman & Johnson 1993) was also adopted in which the participants were told that they were currently using their personal blogs for commercial exchange. Moreover, the initial usage of the

blog for commercial exchange may not derive as much benefit for the blogger compared to its continued, sustained usage (Agarwal & Prasad 1997). Thus, to the extent that intention can usefully predict future usage (Davis, Bagozzi & Warshaw 1989), we focus on how the current usage of personal blog for commercial exchange can affect its continued usage intention.

Our process model builds on the cognitive-motivational-relational theory (CMRT) (Lazarus 1991). The CMRT postulates that a factor affecting a decision-maker's stake in the outcome of a goal, i.e., his/her well-being, will trigger an emotional response (Lazarus 2000; Luce, Bettman & Payne 2001). If the factor facilitates the goal of the decision-maker, i.e., bringing him/her closer to the desired outcome, a positive emotion could be generated. On the contrary, if the factor impedes the decision-maker from achieving the goal, the resultant emotion becomes negative. Finally, the exact emotion elicited is dependent on the type of personal commitment involved. This entire process is collectively known as primary cognitive appraisal (Lazarus 1991). The CMRT further posits that a decision-maker could cope with the emotional encounter in two ways: with a problem-focused or emotion-focused reaction (Lazarus 1991; 2000). Problem-focused coping is associated with a planned action to alter the environment such that the overall emotional situation is improved. Emotion-focused coping attempts to alter the meaning of the events or regulate the expression of the emotion through avoidance or denial behaviors (Yi and Baumgartner 2004). In summary, the appraisal of BBRPS and PRNR as either facilitating or impeding the goal of using a personal blog for commercial exchange incites positive or negative emotion, respectively. The blogger adopts the appropriate coping strategy based on this emotional response, which in turn affect his/her choice of whether to continue exchanging or not (Luce et al. 2001).

Conceptual Overview: The theoretical concepts that we have discussed thus far is summarized in Figure 1. In gist, the blogger's decision making process focuses on the appraisal of BBRPS and PRNR to determine his/her continued exchange intention in accordance with the CMRT. We believe that this is a necessary first step towards establishing the viability of commercializing the blog social network.

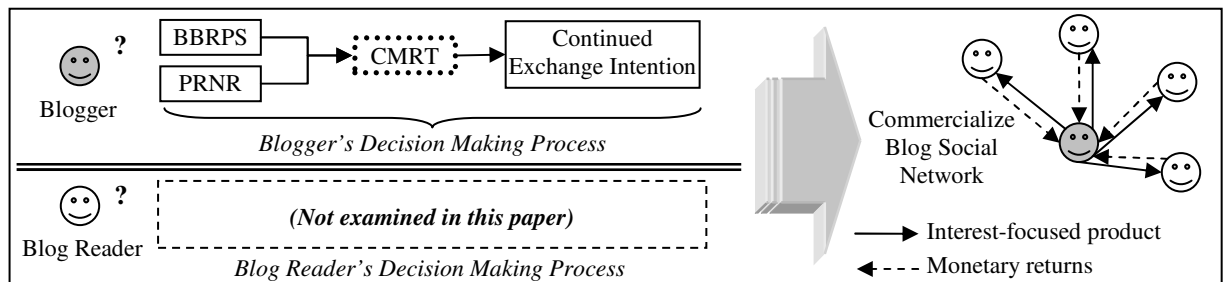


Figure 1 Summary of theoretical concepts.

3 HYPOTHESES

Blog-Blogger-Reader-Product-Similarity: As emphasized earlier in the similarity attraction paradigm, shared interests, relationship building and transaction are three common motivations for consumers to join an online community (Hagel & Armstrong 1997). Considering these three motivations, an online community, such as a blog, could be perceived as a niche with a very narrow interest relationship that could be used to harvest commercial benefits (Pitta & Fowler 2005). The extant literature in the area of personal and relationship selling suggests that sellers are generally more likely to develop exchange relationships with consumers with similar interests (Wilson & Ghingold 1981). More specifically, similarity in a seller's attributes such as appearance, lifestyle and socioeconomic status has been found to improve the effectiveness of relational selling (Crosby, Evans & Cowles 1990) and that a seller would sell primarily to prospects who share similar characteristics such as gender and age (Dwyer, Richard & Shepherd 1998). Leading from this, we reason that a high BBRPS should facilitate the commercial exchange goal of the blogger (Smith 1998). In conformity with the CMRT (Lazarus

1991), we predict that a blogger could develop a positive emotion if the product that the blogger intends to sell is congruent with the interest-focused blog content that he has posted as well as the interest-focused relationship developed with the readers. On the contrary, low BBRPS would impede exchange and lead to negative emotion.

H1a: Blog-blogger-reader-product similarity is positively related with positive emotion.

H1b: Blog-blogger-reader-product similarity is negatively related with negative emotion.

Perceived Reader-Negative Reaction: Intuitively, if the readers react negatively to the commercial exchange activities to the extent that they would stop visiting the blog, it would be impossible for a blogger to achieve the goal of selling his/her products. In addition, extant literature on Internet commercialism suggests that a reader-negative reaction is likely to impede the blogger's exchange goal. For instance, Internet users, in general, have been found to possess a strong negative attitude towards advertising and its societal effects (Previte & Forrest 1998). Specifically, Internet users develop a negative attitude towards Internet advertising that increases with their years of Internet usage experience. Moreover, the credibility of information on Internet sites has been found to be negatively affected by the presence of commercial advertisements (Burbules & Callister 1998). This indicates, in relation to our context, the possibility that blog readers could form a poor perception of the blog if it is to be used for commercial exchange (Gumbrecht 2004). Consequently, the blogger's perception of this potential fallout with the readers is likely to deter him/her from selling products. In the light of this, we reason that a high PRNR should impede the commercial exchange goal of the blogger. In conformity with the CMRT (Lazarus 1991), we believe that a blogger could develop negative emotions in view of the perception of negative reader-reaction resulting from readers expressing non-purchase intention or threatening to boycott the blog. On the flip side, low PRNR would facilitate exchange and thus lead to positive emotion.

H2a: Perceived reader-negative reaction is positively related to negative emotion.

H2b: Perceived reader-negative reaction is negatively related to positive emotion.

Coping Strategy: Decision-making often entails the objective of minimizing negative emotions (see Bettman, Luce & Payne 1998). For instance, Yi and Baumgartner (2004) observed that worry, fear and anxiety resulting from undesirable and uncertain events could lead a buyer to adopt emotion-focused coping strategies such as mental disengagement. On the contrary, a buyer who could proactively deal with the situation would adopt problem-focused coping strategies such as planned problem-solving and seeking social support for instrumental reasons. This observation is consistent with the general propositions of Luce et al. (2001) on the effects of negative emotion on decision-making. Specifically, negative emotion may degrade cognitive performance or attention control as well as motivate the decision-maker to avoid making a choice (i.e., adopting the emotion-focused coping strategy). However, negative emotion could also motivate the decision-maker to approach the choice through an increased processing effort, thus suggesting the use of the problem-focused coping (i.e., adopting the problem-focused coping strategy). On the contrary, it has been shown that positive affects can provide support for continued coping efforts, broaden an individual's attentional focus and increase the available behavioral response, i.e., the adoption of the problem-focused coping strategy (Folkman & Moskowitz 2000). Consequently, a positive affect provides the capability to induce creativity and flexibility in thinking and problem-solving, as well as to process important information (Folkman & Moskowitz 2000). The broaden-and-build theory proposed by Fredrickson (2001) adds that positive emotions such as joy and pride can increase an individual's physical, intellectual, social and psychological resources.

H3: Positive emotion is positively-related to problem-focused coping.

H4a: Negative emotion is positively-related to problem-focused coping.

H4b: Negative emotion is positively-related to emotion-focused coping.

Continued Exchange Intention: Prior research has suggested that problem-focused coping could motivate the decision-maker to exert increased decision effort while emotion-focused coping could induce avoidance behavior (Luce et al. 2001). Furthermore, an individual will attempt to manage the source of a stressful emotional experience with problem-focused coping. From a negative perspective, an individual who opts for emotion-focused coping will alter the meaning of the event or regulate the expression of the emotions (Yi and Baumgartner 2004). Consequently, we believe that problem-focused coping strategies should enable a blogger to explore the potential monetary benefits associated with commercial exchange brought about by BBRPS while simultaneously resolving the threats posed by a PRNR that is caused by Internet commercialism. On the contrary, emotion-focused coping strategies should result in avoidant behavior in which the blogger avoids the perception of threat caused by reader-negative reaction by boycotting the blog.

H5: Problem-focused coping is positively related to continued exchange intention.

H6: Emotion-focused coping is negatively related to continued exchange intention.

4 RESEARCH METHODOLOGY

A 2 (low vs. high BBRPS) × 2 (low vs. high PRNR) full factorial between-subject design was employed. The target population of this study comprises Internet users who are existing bloggers. For each blogger who had responded to our survey, we requested his/her blog address and we painstakingly validated each blog for authenticity. The reason for not including the non-bloggers is that they would reduce the internal validity of the study since they suffered from a lack of the required contextual knowledge and experience. The two independent variables, i.e. BBRPS and PRNR, were operationalized in the form of a treatment blog in the experiment to stimulate the decision-making process (see Figure 2 for a sample blog used in the experiment). In addition, there was a control blog, which was a typical personal blog used as an online diary for a typical undergraduate. It contains 4 postings about the daily life of the undergraduate. The sole objective of the control blog was to orientate the participants to the blog structure used in the experiment. The treatment blog extends the control blog to sell a product, i.e. a shopblog selling **Apple iPod Nano MP3 players**. Both blogs are structurally similar but with three exceptions in the treatment blog: 1) Posting 1 and the area below the blogger profile are used to advertise the product being sold; 2) Posting 3 is used to discuss the undergraduate's interest; and 3) Only the treatment blog contains readers' comments to the postings. However, the participants were not expected to make any recall comparisons that could bias the results since they cannot return to read the control blog and the control blog did not involve product selling.



Figure 2 Blog design layout.

The low BBRPS was manipulated by portraying the blogger as an avid stamp collector (i.e. blogger similarity) who shared his interest in stamp collecting on the blog (i.e. blog similarity), and which attracted many stamp collectors (i.e. reader similarity). All three aspects are reflected in the blogger

profile with the last one also being reflected in the comments made by the readers. Additionally, Posting 3 was mainly about how to start a stamp collection (i.e. blog similarity). The high BBRPS was manipulated by portraying the blogger as an MP3 player geek who shared his own MP3 purchase and usage experiences with the readers on the blog, and which attracted many MP3 player geeks. Posting 3 mainly contained information on how an MP3 player works. Essentially, the low and high BBRPS was manipulated with a philatelic blog and MP3 player blog respectively (see Figure 3). The low PRNR was manipulated by means of readers' comments reflecting positive perceptions towards the selling of MP3 players and positive purchase intentions; while the high PRNR was manipulated using readers' comments reflecting negative perceptions towards the selling of MP3 players (i.e. threats to boycott the blog) and negative purchase intentions.


<p>ABOUT ME</p>  <p>DARREN LIM</p> <p>Welcome to my personal blog. I am currently an undergraduate in NUS. I am also an avid stamp collector. On this blog, I will be sharing with you about my own stamps collection, philatelic books and other philatelic resources (e.g. philatelic websites and forums). Often, I will also share my own experiences on stamp appreciation and appraisal.</p> <p><i>Low</i></p>	<p>ABOUT ME</p>  <p>DARREN LIM</p> <p>Welcome to my personal blog. I am currently an undergraduate in NUS. I am also an avid audiophile and high tech gadget geek with a fancy for MP3 players. On this blog, I will be sharing with you about my own purchase and usage experiences of MP3 players as well as tips and hints on choosing a good MP3 players based on different needs.</p> <p><i>High</i></p>	<p>How to Start a Stamp Collection?</p> <p>To begin, you should only collect what you want and not what your next-door neighbor likes. It's a good idea to organize your initial collection around different philatelic themes such as stamps about a particular country, historical people or even flora and fauna. I would also suggest that you go to your closest post office and see what they have. Usually, post office has multiple new stamp issues every year. Some post offices also sell albums. You can also incorporate stamps collection into your daily life. For instances, whenever you go overseas, try to bring back some stamps that best represent the geographical, history, social, culture or people of that country.</p> <p>WEDNESDAY, JANUARY 23, 2008</p> <p>How does a MP3 Player Works?</p> <p>At their most basic level, digital music such as MP3s looks a lot like any other computer data file: a long series of 1s and 0s. In order to turn an analog signal (such as one picked up by a standard microphone) into a digital stream, ADC (analog-to-digital converter) software measures the signal at a regular interval to find the sampling rate. These samples, if measured close enough together, form a near-exact representation of the analog signal so as to approximate the transmission using 1s and 0s that computers and MP3 players can read.</p> <p><i>Low</i></p> <p><i>High</i></p>
<p>Low vs. High BBRPS (Blogger Profile)</p>		<p>Low vs. High BBRPS (Posting 3)</p>

Figure 3 Manipulation of BBRPS.

MP3 player was chosen as the product since it is a common community product that is gender-neutral and can be considered a search good. It is thus feasible for the readers to purchase MP3 players from the blogger based on what they had read in the blog. While MP3 players can be purchased from other electronic commerce shopping websites, comparing the sales channels is not the objective of this paper. Moreover, there is no convincing reason to believe that the participants had considered sales channels when indicating their response since the controlled experiment made no reference to them other than the blog. Nonetheless, it is necessary to control for the participants' familiarity with the product, i.e. the MP3 player, and brand, i.e. Apple iPod Nano. This is because, to the extent that consumers generally have a better impression of new product information associated with familiar brands (Kent & Allen 1994), bloggers could be more inclined towards exchanging familiar products or brands versus unfamiliar ones. Finally, we also controlled for the participants' demographics, Internet usage experience and blogging experience through random assignment of participants to the treatment conditions. As much as possible, the constructs in our research model were operationalized and measured using existing scales that have been validated in prior studies (see Table 1). The remaining scales were developed based on the recommendations of Moore and Benbasat (1991). All scales are 7-point Likert (1-Strongly Disagree to 7-Strongly Agree) scales except for product and brand familiarity.

<p>Blog-Blogger-Reader-Product Similarity (BBRPS) (Smith 1998)</p> <p>The product that I am selling is</p> <ol style="list-style-type: none"> 1. of a similar nature to my blog postings. 2. closely related to my blog profile and postings. 3. closely matched with my blog profile and readers' comments. 4. very similar to my blog profile and postings. 	<p>Perceived Reader Negative Reaction (PRNR)</p> <p>Using my personal blog to</p> <ol style="list-style-type: none"> 1. sell products is likely to discourage readers from visiting my blog. 2. retail products is likely to result in readers boycotting my blog. 3. advertise products is likely to deter readers from visiting my blog. 4. put products up for sales is likely to receive negative responses from the readers.
<p>Positive Emotion (PE) (Watson, Clark & Tellegen 1988)</p> <p>With respect to the selling of products in my personal blog:</p> <ol style="list-style-type: none"> 1. I feel enthusiastic. 	<p>Negative Emotion (NE) (Watson et al. 1988; Yi & Baumgartner 2004)</p> <p>With respect to the selling of products in my personal blog:</p>

2. I feel interested. 3. I feel determined. 4. I feel excited.	1. I feel worried. 2. I feel nervous. 3. I feel anxious. 4. I feel troubled.
Problem-focused Coping (PFC) (Yi & Baumgartner 2004) With respect to the problems that I might encounter in the selling of products in my personal blog; I will: 1. think about how I may best handle the problem. 2. try to come up with a strategy on what I should do. 3. think about what steps to take to resolve the problem.	Emotion-focused Coping (EFC) (Yi & Baumgartner 2004) With respect to the problems that I might encounter in the selling of products in my personal blog; I will: 1. try to keep my feelings to myself. 2. try not to show other people how I do really feel. 3. try to hold back my feelings.
Continued Exchange Intention (CEI) (Terry, Hogg & White 1999; Agarwal & Prasad 1997) If I have additional Apple iPod Nano MP3 players available for sale within the next 12 months; I intend to continue to use my personal blog to: 1. sell them. 2. put them on the market. 3. use my personal blog to advertise them. 4. use my personal blog to put them up for sale.	Product Familiarity (PF) (Johnson & Russo 1984) 1. I am not familiar at all – very familiar with MP3 players. 2. I am not knowledgeable at all – very knowledgeable about MP3 players. Brand Familiarity (BF) (Allen & Kent 1994) 1. I am not familiar at all – very familiar with Apple iPod Nano. 2. I am not knowledgeable at all – very knowledgeable about Apple iPod Nano.

Table 1 Instrument scales used to measure constructs.

The experiment was conducted in April 2008 through the Internet. Invitation messages were posted on local major Internet blogging forums. All respondents were checked to ensure that they had an existing personal blog that had been actively maintained for at least the past 12 months leading up to the experiment. The experiment began with the participants reading the opening narrative, which asks them to assume the role of an undergraduate who maintains a personal blog as an online diary, i.e. the control blog. The participants next proceeded to read the control blog for 5 minutes and answered a series of questions on the blog's content. The participants could not proceed until all the questions were correctly answered. The participants next read the scenario narrative which tells them that they also blog about their personal interest. More importantly, the participants were told that they would be selling Apple iPod Nano MP3 players on their personal blogs. The participants then read the respective treatment blogs assigned to them for 7 minutes and answered another series of questions on the blog's content. Thereafter, the participants were told that they were to make a decision on whether to continue to use their personal blog, i.e. the treatment blog shown to them, to sell the MP3 players.

In summary, the adoption of a scenario-based approach for the experiment is appropriate since not all the subjects might have experience on commercial blog (Sheng, Nah & Siau 2006). It also allows us to isolate which treatments have a differential impact on the subjects' emotional response.

5 RESULTS

A total of 238 participants responded to our invitations. There were 13 incomplete entries (5.46%) and 1 participant (0.42%) who reported a blog address that was ascertained to be doubtful. These were excluded from the data analysis leaving us with 224 participants. Although the number of male participants was lower than the female participants (27.23% versus 72.77%), the univariate analysis of variance (ANOVA) tests indicated that there was no significant difference in the participants' mean ratings of BBRPS ($Mean = 3.99, \delta = 1.523, F(1, 222) = 0.108, p = .743$) and PRNR ($Mean = 3.87, \delta = 1.689, F(1, 222) = 1.498, p = .222$) across gender. There was also no significant difference in the participants' Internet usage and blogging experiences across treatment conditions. Interestingly, a sizeable percentage of the participants engaged in some forms of commercial activities using their blogs. Altogether, 46.90% of the participants had previously engaged in at least one form of commercial activity. However, the univariate ANOVA tests indicated that there was no significant difference in the participants' mean ratings of BBRPS ($Mean = 3.99, \delta = 1.523, F(1, 222) = 3.146, p = .077$) and PRNR ($Mean = 3.87, \delta = 1.689, F(1, 222) = 0.017, p = .897$) across experience in commercial activities.

Manipulation checks were performed to ensure that our manipulation of the treatment blogs reflecting low and high levels of BBRPS and PRNR were successful. Independent samples t-tests using the mean of the respective sets of instrument items indicated that our manipulations were successful: 1) The mean score of BBRPS for the low treatment group ($Mean = 3.04, \delta = 1.288$) was significantly lower than the high treatment group ($Mean = 4.94, \delta = 1.088, t = -11.924, p < .001$); 2) The mean score of the PRNR for the low treatment group ($Mean = 2.96, \delta = 1.281$) was significantly lower than the high treatment group ($Mean = 4.78, \delta = 1.556, t = -9.567, p < .001$). In addition, the univariate ANOVA tests on the product and brand familiarity indicated that there was no significant difference in the mean value of these two control variables across treatments: 1) for product familiarity, $Mean = 5.39, \delta = 1.132 [F(3, 220) = 0.642, p = .589]$; and 2) for brand familiarity, $Mean = 4.53, \delta = 1.591 [F(3, 220) = 0.376, p = .770]$. In general, participants across treatments had a consistently high level of product and brand familiarity. Coupled with the consistent Internet usage and blogging experiences of the participants across treatments, it appeared that the random assignment was successful in controlling for differences in participants' characteristics across treatments.

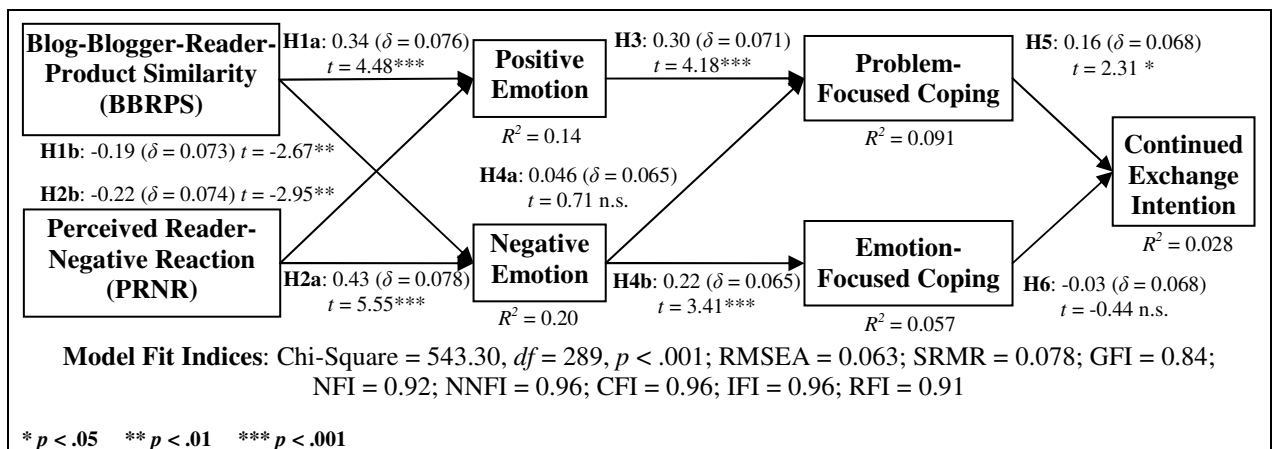


Figure 4 The structural model.

Data analysis was performed with structural equation modeling in LISREL 8.54. The measurement model was first tested using a confirmatory factor analysis. Most of the model fit indices were greater than their respective thresholds (e.g. RMSEA = 0.064; SRMR = 0.053; GFI = 0.85; NFI = 0.92; NNFI = 0.96; CFI = 0.96). Thus the measurement model had a good fit with the data. In addition, the convergent validity, internal consistency, discriminant validity and reliability of the measurement items were assessed to be above their respective thresholds. The correlations among latent constructs did not indicate any multicollinearity problem. Figure 4 depicts the results of the structural model. We observed BBRPS to be positively-related to positive emotion and negatively-related to negative emotion, thus supporting H1a and H1b. The PRNR was found to be positively-related to negative emotion and negatively-related with positive emotion, thus supporting H2a and H2b. Positive emotion was positively-related to problem-focused coping thus providing support for H3. Though negative emotion was positively-related to problem-focused coping; this result is not considered significant. We observed that negative emotion was positively-related to emotion-focused coping. Thus, H4a is not supported while H4b is supported. Problem-focused coping was positively-related to continued exchange intention thus supporting H5. Finally, emotion-focused was observed to be negatively-related to continued exchange intention but this is not deemed significant. Thus, H6 is not supported.

6 DISCUSSION

The integrative decisional process model shows that there are three distinct emotion-coping paths that can lead to either higher or lower continued exchange intention: 1) positive emotion to problem-focused coping; 2) negative emotion to problem-focused coping; and 3) negative emotion to emotion-

focused coping. The exact path that the blogger would traverse is contingent on the cognitive appraisal of the two decision factors (Luce et al. 2001). Specifically, high BBRPS facilitates the blogger's goal of exchanging and positive emotions should be elicited from the blogger (Lazarus 1991). The blogger should then acquire additional coping effort (Folkman and Moskowitz 2000) leading to the adoption of problem-focused coping, i.e. the first path. This enables the blogger to explore options in utilizing the blog for commercial exchange, which can be translated into higher continued exchange intention. For instances, the blogger could create more useful postings on topics relevant to the products or use the blog for after sales communication with the readers.

In contrast, high PRNR impedes the exchange goal and induces negative emotion (Lazarus 1991). On the one hand, if the blogger opts for problem-focused coping, i.e. the second path, he/she could attempt to pacify the readers by making posts designed to project the blog as a one stop location for readers to acquire product knowledge before making purchase. The blogger could also attempt to reply to each negative comment cordially to appease the readers or seek advices from other peers facing similar problem. On the other hand, if the blogger opts for emotion-focused coping, i.e. the third path, he/she is likely to suppress the negative affection associated with the dual threats of non-purchase intention and boycott actions (Yi and Baumgartner 2004) thus increasing the avoidance tendency. For instance, the blogger might refuse to seek advice from other bloggers facing similar situation.

We may therefore surmise that when BBRPS is high and PRNR is low, the blogger would be inclined towards using his/her blog for commercial exchange. Even when PRNR is high, it is plausible for blogger to persist in the use of his/her blog for commercial exchange as long as the negative emotional barrier is not excessively high. This is consistent with the notion that blog is a personal "protected space" (Gumbrecht 2004) and thus the blogger might be more inclined towards retaining the readers at the expense of commercial exchange. In fact, H4a only approaches but did not reach statistical significance. Moreover, the non-significance of H6 could be attributable to the fact that the blogger activated social support seeking, which is one type of emotion-focused coping strategy (Yi & Baumgartner 2004). When the blogger approaches friends for advice or emotional support, it may be perceived by the blogger as self-justification (Bettman, et al. 1998) to minimize the negative emotion caused by high PRNR. Consequently, the blogger could feel vindicated in exchanging commercial products despite unfavorable readers' comments. In gist, the results of the experiment demonstrate that bloggers could be willing to engage in commercial exchange when contextual factors are favorable. It is thus feasible to leverage blog social network for commercial purposes (see Figure 1).

However, future research must still investigate the decision making process from the blog readers' perspective (see Figure 1). To this extent, the present process model may be adapted to study the exchange intentions of blog readers. More specifically, the present sellers' appraisal factors of BBRPS and PRNR may be complemented with other appropriate theoretical constructs to create a set of buyers' appraisal factors. For instance, the perceived tie strength (Nahapiet & Ghoshal 1998) among other readers with the blogger and perceived trust towards the blogger could be critical factors determining whether a particular reader would exchange with the blogger (Kim & Srivastava 2007).

7 CONCLUSION

This paper has several limitations that readers should be cautioned. First, given that H4a is not supported, future research should examine how and why high PRNR could simultaneously lead to problem-focused and emotion-focused coping. In this regard, whether the blogger perceives a loss of control over the given commercial exchange situation could differentiate the coping behavior (Yi and Baumgartner 2004). Second, this study examines a single product type, i.e. MP3 players, which may not be a suitable one for all the subjects. Finally our model suffers from low R^2 , i.e. low predictive power. A likely cause could be that the product used might have incited neutral response. Nonetheless, the ability of our model in establishing significant causal relationships between key constructs, i.e. descriptive and explanative purposes of theory, is a significant one.

Despite these limitations, this study has made numerous contributions. Theoretically, we conceive BBRPS and PRNR in conjunction with the development of a novel decisional process model. These could be extended or generalized to study the impact of commercialism on other social computing tools. Practically, we explicate how personal blogs could be carefully utilized for commercial activities, i.e. capitalizing on the similarity between the blog, blogger, readers and the products. Additionally, the identification of PRNR as a plausible impediment factor implies that individual bloggers should exercise caution when turning their personal blogs into commercial tools.

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