Determinants of User-Pleasure and Emotional Commitment to Online Social Network Sites

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Abstract. The influence of social networking sites (SNS) on businesses and in society, in general, have increased in the last two decades due to the rapid development of the internet and other communication tools. Users long-term patronage on these platforms is a key determinant for businesses to harness the several advantages of SNS. User’s engagement has been the focus of researchers over the last decade, however, less attention is given to the affective aspect of the usage experience. To fill this gap in the literature, this study proposed a conceptual model-based stimulus-organism response to investigate the impact of two stimulus factors on user-pleasure and how the latter influences users’ emotional commitment. Results revealed that entertaining value and utilitarian value were positively related to user-pleasure. There was also evidence of a strong and significant impact of user-pleasure on emotional commitment. Implications of these findings for theory and practice were discussed.

Introduction

Social network sites (SNS) are virtual platforms where people of common interests create or maintain relationships, fantasy or share relational flux [1]. Many people join these virtual community in order to gratify their social and or communication needs [2]. SNS have experienced fast growth in number and usage by individuals in recent times. This growth has attracted businesses who saw in these platforms the opportunity to develop and broaden their customer relationship. For instance, companies use SNS to disseminate information related to their products or services, provide assistance to their customers or survey the demand for a given product or service. Hence, SNS could provide businesses with strategic advantages for business growth and sustainability. However, translating those advantages into reality for businesses will be possible if only SNS platforms achieve user-commitment. A committed social SNS user is highly important to SNS developers and marketing planners. Thus, user-commitment has been the focus of many research works [3, 4]. Majority of these studies addressed user-commitment issue only from the cognitive perspective of user-behaviour and less focus has been given to the role of user emotion. In the context of social media, the emotional aspect of its usage plays an important role in determining the attitude or behaviour of SNS users. Therefore, it is relevant to investigate factors that influence these emotional responses in user behaviour. In this regard, this study will focus on investigating the following questions: (1) what is the impact of entertaining and utilitarian value on user-pleasure? and (2) what is the role of pleasure in predicting user-emotional commitment? In addressing the above concerns, this study proposed a theoretical model based on stimulus organism response (S-O-R) theory. The model was tested with data collected from two hundred and fifty-two Weibo users.

Theoretical Background

Stimulus organism response (S-O-R) theory of Mehrabian and Russell [5] was designed originally to investigate general environmental psychology, however, it has been adapted by researchers to
study consumer behaviour in virtual environments [6, 7]. S-O-R theory posit that people’s internal organism experience (O) is influenced by the environmental stimulus (S) to generate their cooping or avoidance behaviour (R). According to the theory the stimulus is conceptualized as the influence that stimulates the consumer. This can be observed in various ways such as in the physical store atmosphere or the design of retail web site. The organism refers to the individual’s internal evaluation of the different stimulus they have been exposed to in a given environment. The response is the outcome of the internal evaluation of individuals. The S-O-R model has been applied in multiple fields. These include; marketing [8], website design [9], retailing [10, 11], and information systems [4, 12] to investigate the impact of different stimuli on various individuals’ behavioural responses. Thus, the theory is suitable to investigate user-behaviour in the context of SNS.

Conceptual Model

To investigate the determinants of pleasure and emotional commitment, stimulus organism response (SOR) theory of Mehrabian and Russell [5] was adopted. This study considered entertaining value and utilitarian value as the stimulus that will produce the organism which in the case of this study is referred to as pleasure. According to S-O-R theory, the organism results in the cooping or avoidance behaviour of the consumer. In the current study, emotional commitment was introduced, which is the attachment of the users to the SNS platform due to response from the stimulus. Accordingly, a research model was proposed (Figure 1) and the following hypotheses were formulated.

Hypotheses development

![Figure 1. Proposed research model.](image)

**Entertaining Value and Pleasure**

Hedonic value is one of the most important aspects of social media consumption. Offering features that entertain users induces user pleasure and long-term user retention on the platform [7]. Existing studies indicated that users of SNS platforms are committed to platforms with higher entertaining features [2, 13]. For example, sharing entertaining content such as videos, audios, pictures or text can lead users to value a SNS platform as highly entertaining, resulting in pleasure. In this study, entertaining value was referred to as the enjoyment, fun and entertainment users derive from the use of Weibo. It is argued that when the platform successfully entertains the user this will lead to user-pleasure. Accordingly, the following was hypothesised:

**H1 Entertaining value positively influences pleasure**

**Utilitarian Value and Pleasure**

Utilitarian value often leads to the choice of a given SNS platform [14, 15]. Marketing research has widely explored the utilitarian aspect of consumption experience [16]. Like consumers in general, social media users are in search of utilitarian benefits when using a peculiar SNS platform. The ability to customise user interface features which allow users to interact with other members of the virtual platform are examples of utilitarian benefits for SNS users. When users perceive the virtual platform as useful in achieving their goals such as maintaining a relationship, getting to know what is going on with their friends or in the world, they may feel pleased with their consumption experience. Therefore, we proposed the following hypothesis:

**H2 Utilitarian value positively influence pleasure**
**Pleasure and Emotional Commitment**

The perception of an environment as either enjoyable or unenjoyable is referred to as pleasure [5]. Such an emotional response can lead to cooping or abandonment behaviour of a service or product by the consumer. In the context of SNS, when users experience a higher degree of pleasure it results in an emotional commitment and this can contribute to long-term patronage of the users. Accordingly, the following was hypothesised:

Pleasure positively influence emotional commitment

**Methodology**

This study adopted a survey method. A survey instrument composed of 12 scale items was developed in order to measure the constructs in the proposed model. These constructs included; entertaining value, utilitarian value, pleasure and emotional commitment. The items were adapted from previous studies in order to avoid response bias. The items were slightly modified when necessary to fit the purpose of the current study. All the items were measured on a seven-point Likert scale with anchored from (1) strongly disagree to (7) strongly agree. To reduce response bias and ensure validity of the survey instrument, the following steps were followed: (i) the questionnaire was first reviewed by two information science lectures to ensure brevity and accuracy and (ii) the revised questionnaire was administered to a group of 10 students to assess if the questions were clearly understood (iii). Then, the necessary improvements were made in the questionnaire and pilot-tested with a random sample of thirty-five students. With the assurance of the reliability of the survey instrument, the questionnaire was administered to the target population. The present study included a sample that consisted in total of two hundred and fifty-two students enrolled in various courses at Harbin Institute of Technology in China. The respondent were all users of Weibo, a social networking site based in China. The choice of students was made because they are more exposed to and familiar with communication technologies. Previous studies reported that there is a similarity between students and the normal population of SNS users [17-19]. Participants were provided with a web link in order to complete the survey and submit their responses through the same channel. The online survey was done via a Chinese popular survey website (www.wjx.cn). A total of two hundred and fifty-two valid responses was obtained after removing three invalid cases. No financial reward was offered to the respondents.

Structural equation modelling (SEM) was used to conduct the data analysis. SEM is used by researchers to estimate multiple and interrelated dependence in a single analysis [20]. The measurement model was first estimated and then the proposed hypotheses were tested according to the recommendation of Anderson and Gerbing [21]. The model was run in AMOS 23 (analysis of moment structures) under maximum likelihood and the model fit was assessed through the following fit indices: normed chi-square to degree-of-freedom (CMIN/DF), normed-fit index (NFI), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root mean square error of approximation (RMSEA), and root mean squared residual (RMR) (Table 1). Reliability and validity were assessed using three quantitative indicators: composite reliability (CR), AVE (Average Variance Extracted), MSV (Maximum Shared Variance). The requirement in achieving both reliability and validity are summarized in Table 1.

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Convergent Validity</th>
<th>Discriminant Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR &gt; 0.70</td>
<td>AVE &gt; 0.50</td>
<td>MSV &lt; AVE</td>
</tr>
<tr>
<td></td>
<td>√AVE &gt; Inter-construct correlations</td>
<td></td>
</tr>
</tbody>
</table>

**Results and Discussion**

The measurement and structural models presented a good overall model fit as all the indices used in assessing model fit were within the recommended range (Table 2). Based on the requirements for
reliability and validity as presented in Table 1 the data reported in Table 3 give evidence that the research model had no reliability and validity concerns meaning that it captures what we intended and could be replicated. The model explained 68% and 70% of the variation in pleasure and emotional commitment, respectively. Thus, the R Square demonstrated a satisfactory level of explanation of the variation of pleasure and emotional commitment by independent variables considered in this study. An observation of the regression coefficients (Table 4) showed that entertaining value is significantly associated with pleasure at $\beta = 0.23$ $p<0.001$, implying that the users were pleased with the entertainment provided by the SNS platform. Thus, improving entertainment will result in an increase in user-pleasure and contribute to achieving user-emotional commitment to the SNS platform.

There was a positive significant relationship between utilitarian value and pleasure at $\beta = 0.537$ $p<0.001$. This means that the utilitarian value of the platform contributes significantly to the pleasure users derive from the use of the platform. In other words, if the platform is useful to the users in achieving different tasks when needed, they will derive pleasure in using the platform thereby achieving user commitment to the SNS platform. These findings confirm our expectation as extant studies reported that social media users are mostly driven by socialization, hedonic purpose and for utilitarian need [7]. As expected, there was a positive significant relationship between pleasure and emotional commitment at $\beta = 0.984$ $p<0.001$ showing that pleasure plays an important role in predicting user emotional commitment.

In the context of SNS platforms, the pleasure users derive from using a platform is a significant element which drives emotions. The results demonstrated that when users perceive the platform as entertaining and useful, this translates into user-pleasure which in turn can lead to satisfaction or emotional commitment. Less attention has been given to investigating the antecedent of user-pleasure in the context of social media. hence, further investigations are required to broaden current knowledge of this aspect of social media consumer behaviour. Moreover, these findings are relevant as they will contribute to achieving long-term retention of users of SNS platforms. Based on this evidence, it is suggested that Weibo developers and other SNS providers improve features that will make their platforms more entertaining in order to achieve platform sustainability.

Table 2. Fit indices for model measurement and structural model.

<table>
<thead>
<tr>
<th>Fit Index</th>
<th>Threshold</th>
<th>Structural Model</th>
<th>Measurement Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN/DF</td>
<td>$\leq3.0$</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>GFI</td>
<td>$\geq0.90$</td>
<td>0.93</td>
<td>0.99</td>
</tr>
<tr>
<td>AGFI</td>
<td>$\geq0.80$</td>
<td>0.88</td>
<td>0.95</td>
</tr>
<tr>
<td>NFI</td>
<td>$\geq0.90$</td>
<td>0.95</td>
<td>0.99</td>
</tr>
<tr>
<td>CFI</td>
<td>$\geq0.90$</td>
<td>0.98</td>
<td>0.99</td>
</tr>
<tr>
<td>RMR</td>
<td>$\leq0.05$</td>
<td>0.1</td>
<td>0.19</td>
</tr>
<tr>
<td>RMSEA</td>
<td>$\leq0.08$</td>
<td>0.07</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Table 3. Reliability and validity of models.

<table>
<thead>
<tr>
<th>Latent Constructs</th>
<th>CR&gt;0.7</th>
<th>MSV&lt;AVE</th>
<th>AVE $&gt;0.5$</th>
<th>$\sqrt{AVE}$ (1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilitarian value</td>
<td>0.924</td>
<td>0.602</td>
<td>0.804</td>
<td>0.897</td>
<td><strong>0.897</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertaining value</td>
<td>0.922</td>
<td>0.493</td>
<td>0.797</td>
<td>0.893</td>
<td>0.538</td>
<td><strong>0.893</strong></td>
<td></td>
</tr>
<tr>
<td>Emotional commitment</td>
<td>0.903</td>
<td>0.724</td>
<td>0.757</td>
<td>0.870</td>
<td>0.752</td>
<td>0.702</td>
<td><strong>0.870</strong></td>
</tr>
<tr>
<td>Pleasure</td>
<td>0.939</td>
<td>0.724</td>
<td>0.837</td>
<td>0.915</td>
<td>0.776</td>
<td>0.613</td>
<td>0.851</td>
</tr>
</tbody>
</table>

Note: Bold values in diagonal are the square root of the Average Variance Extracted (AVE) of each construct. Off-diagonal correlation coefficients between constructs.

Table 4. Standardized estimates.

<table>
<thead>
<tr>
<th>H#</th>
<th>Conceptualized Path-</th>
<th>Standardized Estimate</th>
<th>P-Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Entertaining value $\rightarrow$ Pleasure</td>
<td>0.341</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b</td>
<td>Utilitarian value $\rightarrow$ Pleasure</td>
<td>0.537</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>Pleasure $\rightarrow$ Emotional commitment</td>
<td>0.984</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>
Conclusion
This study proposed a theoretical model that investigated the impact of entertaining value and utilitarian value on user-pleasure. It also examined the role of user-pleasure in predicting emotional commitment. The model demonstrated a good explanatory power by explaining 68% and 70% of the variation in user-pleasure and emotional commitment respectively. Pleasure was found to be significantly related to entertaining value and utilitarian value. Moreover, the study reveals that pleasure has a strong impact on emotional commitment. The findings of this study provide scholarly and practical insights on SNS platforms user behaviour.

Reference


