How audience diversity affects consumers' creation of brand posts on Facebook

A cross cultural examination

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How Audience Diversity Affects Consumers’ Creation of Brand Posts on Facebook: A Cross Cultural Examination

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\textbf{ABSTRACT}

The purpose of this study is to investigate cultural influence on the creation of brand-related posts on Facebook, with a particular focus on the mediating roles of the diversity of user audiences, as well as the intensity of Facebook use. The online survey was conducted with a representative sample of respondents from South Korea, Thailand, the Netherlands, and the United States (N = 802). The findings show that cultural differences at both personal and national levels play a role for social relationships between users and their audiences with consequences for the creation of brand posts. Specifically, as a result of audience diversity, users in individualistic cultures create brand-related content more frequently than users in collectivistic cultures, partly as a consequence of their higher Facebook use.

Brand-related user generated content (Br-UGC) has become a major source of product information, and more than half of the users of social networking sites (SNSs) around the globe rely on Br-UGC when forming opinions and making purchase decisions (Macdonald, 2019). As globally accessible SNSs have proliferated, the power of Br-UGC has extended beyond cultural and national boundaries (Chan & Yang, 2021). Although Br-UGC research has increased over the past few years, there is still a lack of cultural insights in the intercultural communication literature. In particular, we have limited knowledge of how culture influences the underlying process of Br-UGC, and what factors explain the creation of Br-UGC.

Researchers have suggested that one of the main reasons that consumers create content and share this with people on SNSs is to maintain and form relationships, and propose that this is also true for content about brands (Sijoria et al., 2019; Wang et al., 2016). When using SNSs such as Facebook, consumers can easily share their brand experiences with different online audiences ranging from close friends to total strangers. The increased relevance of SNS usage has drawn much attention from researchers and practitioners, particularly to understand how a user-audience relationship affects online content sharing. For example, studies have shown that Facebook users disclose more information when their audience becomes more diverse in order to connect with wider groups of people (Beam et al., 2017; Vitak, 2012). Some
researchers, however, argue that people face a challenge balancing the expectations of different social spheres when they disclose personal information online (Marwick & Boyd, 2014; Vitak, 2012). Some Facebook users even avoid sharing information about their personal life and use privacy settings to control who can see their content (Ellison et al., 2011).

While this growing research on audience diversity has yielded results that contribute to the literature on online content sharing (e.g. Beam et al., 2017; Bi et al., 2019), how this diversity affects consumers’ intention to post their own content online is still unclear and needs further investigation. Cross-cultural researchers (e.g. Livingstone, 1998; Silverstone, 1990) have suggested that, in each culture, audience is a potential factor that explains how people socialize and communicate. However, we do not know yet whether the degree of audience diversity, which varies among users in different cultures (Lee-Won et al., 2014; Rui & Stefanone, 2013), affects the creation of Br-UGC. To fill these research gaps, we specifically investigate the role of audience diversity when consumers across cultures generate their own brand-related content on Facebook. To investigate cultural differences, we focus on the collectivism-individualism dimension, as this is an important construct for objectively assessing communication styles (Lee & Yoo, 2012), as well as social relationships (Hofstede, 1983).

Using a proportionally representative sample of active Facebook users (N = 802) across collectivistic and individualistic cultures, our study aims to make several theoretical and practical contributions. From a theoretical perspective, this study is among the first cross-cultural studies that considers the role of users and their audiences when creating brand-related content on SNSs. The results from the four countries (South Korea, Thailand, the Netherlands, the United States) add to the studies on social relationships, which have generally been restricted to a single country (e.g. Chu & Kim, 2011; Kim et al., 2015). Moreover, we contribute to research on online information disclosure by examining the mediating role of audience diversity. The results illustrate the underlying process behind the creation of brand-related posts on Facebook. From a practical perspective, by focusing on consumer-consumer relationships, our study provides significant insights into what factors stimulate Facebook users in different cultures to create Br-UGC. This will provide global marketers a better understanding of how the diversity of audiences within an individual’s network influences Br-UGC across cultures.

**Theoretical background**

**The effect of audiences on the creation of Br-UGC**

Students of psychology, self-presentation, and impression management have asserted that being aware of a specific audience can cause a change in behaviour. Notably, the presence of an audience increases an individual’s arousal and subsequently affects his/her performance in various ways, for instance, the desire to maintain a positive public image (Bond, 1982), to present themselves strategically (Tennie et al., 2010), and to impress other people (Hamilton & Lind, 2016). Tennie et al. (2010) describe the effect of having an audience as a form of impression management, with people wanting to maintain a good reputation and positive image in the eyes of others.
With the rise of SNSs such as Facebook, Instagram, and Tiktok, the desire to present a positive online image has become even more challenging due to the one-to-many context of communication. On SNSs, the audience includes all the members of a user’s online network who are able to view the information and interact with the user online (Rui & Stefanone, 2013). Today’s SNS users have increasingly diverse social networks, including family members, close friends, acquaintances, and sometimes even strangers. Thus, when sharing content on SNSs, the users have to consciously decide what to share, and with whom.

**Audience diversity and Br-UGC**

In this study, we adopt the concept of context collapse (see Marwick & Boyd, 2011) to understand the degree of audience diversity within an individual’s network. On SNSs, context collapse occurs when users encounter problems due to their failure to recognize and manage the audience within their network. The collapse of the audience makes self-presentation more challenging as individuals need to balance different expectations of their ideal self in the eyes of people from different social contexts (Marwick & Boyd, 2014; Vitak, 2012). Some people may have difficulties determining how to present themselves to different audience members (Binder et al., 2009). They will tend to avoid disclosing unwanted information and appear to construct their presentation strategically, leading to a lower likelihood of information disclosure (Child & Westermann, 2013). On the other hand, research suggests that, in order to receive the benefits of online social interactions, people tend to balance their concerns about disclosing information to a wider audience (Hogan, 2010). To achieve this, they create content that is normatively acceptable to every audience member – content without “nudity, violence, political extremism, or racial epithets” (Hogan, 2010, p. 383).

In line with Hogan (2010), several studies support the notion that audience diversity positively influences general information disclosure on Facebook, for instance, updating wall posts more frequently (Rui & Stefanone, 2013), sharing online news (Beam et al., 2017), and sharing personal information (Vitak, 2012). Interestingly, as the need for social relationships increases, a more diverse audience appears to provide users with a larger platform for sharing information and engaging in relevant discussions (Beam et al., 2017). Instead of avoiding online disclosure, people tend to manage their audiences consciously, disclosing more information to their Facebook friends in order to build social support (Rui & Stefanone, 2013; Vitak, 2012).

When it comes to brand-related information disclosure on SNSs, several scholars have found that consumers endorse brands to identify with their in-group and, at the same time, to enhance their self-presentation (e.g. Park & Kang, 2013; Smith et al., 2012). These consumers often mention products they possess and brands as part of an effort to maintain and develop their self-concept and relationships with others (Sung et al., 2018). However, to date the role of audience diversity on brand-related communication is not clearly understood. Studies suggest that people who have a more diverse audience are more likely to participate intensively in Facebook activities (e.g. sharing, posting). This makes us expect that these people will also generate and publish content about brands more frequently than people with less diverse audiences. Therefore, applying Hogan’s (2010) definition, brand-related content can be considered inoffensive and will probably be acceptable to all kinds of audiences. In addition, since people use Facebook
as a platform to construct or promote their self-presentation (Smith et al., 2012), they will presumably prefer to post positive or neutral content about brands rather than negative content.

Therefore, we predict that when an individual has a more diverse audience in their network, they will tend to participate in Facebook activities more intensely, in order to enhance their self-presentation and develop social relationships with their Facebook friends. Consequently, more intense Facebook use will increase the frequency of uncontroversial content creation, in this case or Br-UGC. This leads us to the following hypotheses:

**H1:** The higher a user’s audience diversity, the more intense their Facebook use.

**H2:** The more intense a user’s Facebook use, the more they will create brand-related content.

**Cultural collectivism and individualism**

Culture is a complex construct that describes the common beliefs, practices, norms, and values of a group of human beings (Schwartz, 2006). These common values serve as the most central aspect that individuals within a group, such as a nation, hold and use to distinguish themselves from others (Hofstede, 2001). This study specifically focuses on the collectivism-individualism construct, as it is an important factor in consumer behaviour, including how consumers assess relationships between individuals (Hofstede, 1983) and how they communicate with others (Gudykunst et al., 1997).

According to cross-cultural studies (e.g. Hofstede, 2001; House et al., 2004; Triandis, 2001), individualistic cultures, such as countries in Northern and Western Europe, and North America, are composed primarily of independent and self-oriented individuals who value personal happiness and the pursuit of private goals. People with individualistic values are motivated by their own preferences, needs, and rights. Their social relationships tend to be looser and more flexible (Hofstede, 2001). In contrast, collectivistic cultures, such as countries in Asia, are generally composed of interdependent people who identify themselves according to membership in a group. Individuals with collectivistic values appear to base their identity on collective social norms, with family and friends being important factors (Hofstede, 2001). The social relationships between individuals in collectivistic societies appear to be more tight, which leads to a high level of loyalty among in-group members (Cho & Park, 2013).

**Cultural differences in brand-related SNS Use**

Studies of brand-related SNS use reveal that consumers from collectivistic cultures (e.g. China, South Korea) spend more time on SNSs than consumers from individualistic cultures (e.g. the United States), which suggests the prominent role of SNSs in collectivistic societies (Chu & Choi, 2011; Ji et al., 2010). Tsai and Men (2014) have also suggested that consumers from collectivistic culture (e.g. China) are more dependent on social media, as they tend to rely heavily on personal networks (e.g. close friends,
family) for information about products and social support. In contrast, consumers from individualistic cultures (e.g. the United States) were found to be less dependent on social media and preferred to consult a wider range of information sources. When making a purchase decision, consumers from individualistic cultures are less likely to consult people on their social media, but more likely to consult a wider range of information sources including other media channels (Goodrich & de Mooij, 2014; Lam et al., 2009). In contrast, consumers from collectivistic cultures (e.g. China, South Korea, Thailand) tend to rely heavily on personal connections on social media to form an opinion, rather than referring to other sources of information (Goodrich & de Mooij, 2014; Kitirattarkarn et al., 2019).

Cross-cultural researchers have recently found that individualistic and collectivistic consumers (e.g. United States, South Korea) indicated different motivations when using Facebook. These cultural differences determine the nature of social relationships (ingroup versus outgroup) within their network, and affect an individual’s attitude towards a product (Sung et al., 2020), advertising credibility and effectiveness, and purchase intention (Errmann et al., 2019). Errmann et al. (2019) found that South Korean consumers were positively affected by recommendations on Facebook, in part because of their unconditional concept of friendship. In contrast, American consumers appeared to have less brand trust, and recommendations from Facebook friends had a lower impact on their purchase intention. This is because they prefer to consult additional sources to confirm the information offered in the advertisement.

**Cultural differences in SNS audiences**

Culture is an important factor that explains how people develop and characterize relationships with others (Hofstede, 2001; Triandis, 1989); therefore, the degree of audience diversity within an individual’s network will also tend to differ across cultures. As users in collectivistic cultures appear to emphasize intimate relationships and deep involvement, their networks of social relationships will tend to be less diverse. While reinforcing social relationships with existing friends and thus bonding social capital (Huang & Liu, 2017) is more relevant to group-oriented collectivistic cultures, connecting with diverse contacts tends to be more pronounced in individualistic cultures (Liu et al., 2016). Notably, Köhl and Götztenbrucker (2014) found that relationships among Thais showed lower diversity and were more peer-group dominated, while relationships among Austrians were more individualized and varied. Similarly, Cho and Park (2013) suggest that South Korean users tend to primarily have friends who are also close or familiar offline friends. As a result, they reinforce their tight and close relationships by having a limited number of friends on Cyworld (a popular SNS in South Korea). In contrast, American users prefer to have many people with a wide range of interests in their networks, and prefer to discuss with people at different levels of social relationships in order to exchange or discuss information (Cho & Park, 2013; Chu & Choi, 2011).

Specific to the context of brand-related SNS use, recent studies also support previous intercultural communication research by showing that Facebook users from individualistic cultures (e.g. United States) tend to focus on themselves and their own resources with less emphasis on groups but more emphasis on a wide range of social relationships (Sung et al., 2020). In contrast, Facebook users from collectivistic cultures (e.g. South
Korea, India) tend to have relatively few groups of friends, but these groups are perceived to be more intimate, which strongly influences individuals’ trust and beliefs when seeking product information (Sung et al., 2020; Leonhardt et al., 2020). Based on these findings, we formulated the following hypothesis.

H3: The culture to which consumers belong influences the degree of audience diversity within their social network on Facebook.

**Cultural influence in factors underlying the creation of Br-UGC**

Although very limited attention has been given to cultural influence on Br-UGC, recent studies noted that consumers’ cultural values influence their online brand-related activities (Choi & Kim, 2019; Kitirattarkarn et al., 2020). For instance, when posting brand-related content on Facebook, collectivistic consumers tend to generate content with a small number of social media contacts in order to have a conversation with like-minded friends and to get support (Kitirattarkarn et al., 2020). Moreover, a small network with tight relationships allows them to feel more comfortable providing advice or sharing opinions with their friends, and they engage more actively in generating content about brands on Facebook (Choi & Kim, 2019). In contrast, consumers with individualistic values prefer to have open discussions with others outside of their (close) social group. Facebook users in individualistic societies engage in positive self-presentation (e.g. photo sharing, status updates) in order to manifest and enhance themselves, regardless of the level of intimacy with their audience (Lee-Won et al., 2014). Sharing information about products may be a way to demonstrate their competence, distinctiveness, knowledge, or expertise to their wider contacts on Facebook (Choi & Kim, 2019; Gvili & Levy, 2021). By doing this, these consumers can become opinion leaders in the Br-UGC context. In other words, consumers with high individualistic values may be eager to share their product experiences with other people and actively voice their opinions on brands in SNSs.

We can thus conclude that consumers from individualistic cultures actively and intensively use Facebook (e.g. posting brand-related content) as a means of exchanging information about products as well as presenting a positive image of themselves to wider groups of people. By doing so, consumers from individualistic cultures can increase their social status and present their own unique image via Br-UGC. Consumers from collectivistic cultures, on the other hand, are more likely to participate in online conversations to supplement their offline interactions and to gain emotional or social support. Specifically, when engaging in brand communication online, they appear to value friendship and trust existing offline friends (Barker & Ota, 2011) rather than wanting to consult a wider audience for factual information about a product (Goodrich & de Mooij, 2014). Based on this, we formulate the following hypothesis:

H4: The effect of culture on the frequency of Br-UGC is mediated by audience diversity and intensity of Facebook use.

To illustrate the effect of culture on Br-UGC via audience diversity and Facebook use
intensity, we propose the following conceptual model (see Figure 1).

**Method**

**Participants and procedure**

To test the hypotheses of this study, we recruited online consumers from two collectivist national cultures (South Korea, Thailand) and two individualistic ones (the Netherlands, the United States). These four countries were chosen because cross-cultural research (e.g. Hofstede, 2001) has identified their national cultures as highly collectivistic (South Korea, Thailand) or highly individualistic (the Netherlands, the United States). In addition, it has been suggested that consumers across these four countries use social media for purchase decisions differently for cultural reasons (see Goodrich & de Mooij, 2014).

Participants answered the questions in their own native language. Screen-out questions were used to exclude non-Facebook users from the sample (e.g. Are you currently using Facebook? Have you ever posted content related to brands on Facebook?). An online survey was conducted with a proportionally representative sample of Facebook users. The proportion of age and gender of Facebook users across the four countries were taken into our consideration (We Are Social, 2019). We used an online panel from Qualtrics to collect the data. A total of 802 active Facebook users living in the four chosen countries participated in the study. The participants were 50.5% female, 40.6% 18–34 years old, 40.3% 35–54 years old, and 19.1% older than 55. The groups were comparable in terms of age and gender across the four countries. Table 1 presents the demographic characteristics across these four countries.

**Measures**

**Audience diversity**

The measure of audience diversity focused on the diversity of people from different contexts within each user’s network. We adopted this approach from previous studies (Beam et al., 2017; Vitak, 2012). We asked participants to estimate the percentage of
people in their Facebook friend list from six different categories within their Facebook friend list namely: family, close friends, classmates/colleagues or co-workers, people known from hobbies/religion or other organizations, acquaintances, and strangers. These categories were based on previous studies (Beam et al., 2017; McCarty et al., 2001) and adapted to the current study. To measure audience diversity, we calculated Simpson’s D, a measure that has been employed in quantifying audience diversity using propositions (see Beam et al., 2017). With the six categories, the measure ranged from 0 denoting no diversity to 0.83 representing the most diversity ($M = .63, SD = .18$).

**Intensity of Facebook use**
This measure focused on the extent to which participants actively participate in Facebook activities and are emotionally connected to Facebook as part of their daily life (Ellison et al., 2007). Participants indicated their intensity of Facebook use by completing 6 items on a 7-point Likert scale ($M = 4.96, SD = 1.34$). The items included, for instance, “Facebook is part of my everyday activity,” “I feel I am part of the Facebook community” (Cronbach’s alpha ($\alpha$) = .92).

**Brand-related content creation**
We measured the frequency users created brand-related content by asking participants to indicate how often they generally posted content related to brands on Facebook on a seven-point scale (1 = never, 7 = at least daily, $M = 2.88, SD = 1.65$).

**Cultural collectivism-individualism**
In the analysis, we computed the country of the sample to a dummy variable: code 0 for collectivistic cultures (South Korea and Thailand), code 1 for individualistic cultures (the Netherlands and the United States). This analytical approach has been often employed in cross-cultural research on consumers’ sharing online information (e.g. Chu & Choi, 2017).

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Table 1. Demographic characteristics by country.

<table>
<thead>
<tr>
<th>Gender</th>
<th>US (%) (N = 203)</th>
<th>NL (%) (N = 200)</th>
<th>KR (%) (N = 195)</th>
<th>TH (%) (N = 204)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45.8</td>
<td>49</td>
<td>53.3</td>
<td>50</td>
</tr>
<tr>
<td>Female</td>
<td>54.2</td>
<td>51</td>
<td>46.7</td>
<td>50</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–34</td>
<td>39.4</td>
<td>41</td>
<td>41.5</td>
<td>40.7</td>
</tr>
<tr>
<td>35–54</td>
<td>40.9</td>
<td>39</td>
<td>41</td>
<td>40.2</td>
</tr>
<tr>
<td>55+</td>
<td>19.7</td>
<td>20</td>
<td>17.4</td>
<td>19.7</td>
</tr>
<tr>
<td>Education</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below secondary school</td>
<td>19.7</td>
<td>0.5</td>
<td>-</td>
<td>0.5</td>
</tr>
<tr>
<td>Secondary school and above</td>
<td>30.5</td>
<td>15.5</td>
<td>14.9</td>
<td>16.1</td>
</tr>
<tr>
<td>Undergraduate and above</td>
<td>40.9</td>
<td>73</td>
<td>75.9</td>
<td>75</td>
</tr>
<tr>
<td>Master degree and above</td>
<td>8.9</td>
<td>11</td>
<td>9.2</td>
<td>8.4</td>
</tr>
<tr>
<td>Income*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>31.1</td>
<td>34</td>
<td>11.8</td>
<td>19.5</td>
</tr>
<tr>
<td>Average</td>
<td>26.6</td>
<td>22</td>
<td>19.5</td>
<td>31.4</td>
</tr>
<tr>
<td>Above average</td>
<td>42.3</td>
<td>44</td>
<td>68.7</td>
<td>49.1</td>
</tr>
</tbody>
</table>

$N = 802$, US = United States, NL = Netherlands, KR = South Korea, TH = Thailand.
*Participants answered their level of income on a scale, which 1 indicated the ‘lowest income’ and 10 the ‘highest income’. The average income per month of American, Dutch, South Korean, and Thai people was USD 2,224, EUR 2,193, KRW 1,813,458, and THB 20,000 respectively (OECD, 2017).
Dawar and Parker (1994) suggest that by grouping counties along with collectivism and individualism dispositions, we are able to attribute observed group differences to causal factors and subsequently extrapolate the findings beyond the countries represented in the sample to similar populations which have a common psychological collectivism-individualism orientation.

Furthermore, the dimension of horizontal individualism (HI) scale was employed to measure the degree of cultural collectivism-individualism at the personal level. This scale has been validated and used to measure the extent of collectivism-individualism at the personal level (Singelis et al., 1995). In particular, it measures the extent people strive to be unique and do their own thing. Participants assessed 4 items on a seven-point Likert scale ($M = 5.62, SD = .91$). The items included, for example, “I would rather depend on myself than others,” “I rely on myself most of the time, I rarely rely on others,” “I often do my own thing,” “My personal identity, independent of others, is very important to me” (Cronbach’s alpha ($\alpha$) = .80). Participants who score high on this scale tend to be more individualistic.

**Control Variables.** Apart from demographic information (gender, age, educational level, income), we further controlled for the number of Facebook friends and extraversion. For extraversion, several studies have associated this personality trait with the usage of SNSs for socializing (Jackson & Wang, 2013). Specifically, people with introverted or extroverted personalities consider the effect of audiences differently (Uziel, 2007). For instance, when people believe that others are observing them, extroverts with high self-esteem tend to present themselves in a “positive-self-assured” way, whereas introverts with low self-esteem tend to place themselves in a “negative apprehensive” way (Uziel, 2007). We used a validated scale to measure extraversion (Donnellan et al., 2006; $M = 4.08, SD = 1.08$).

**Equivalency of the measures**

All the questionnaires and measures were translated using a translation/back-translation procedure to ensure cross-cultural content equivalency (Craig & Douglas, 2005). Communication researchers who are fluent in Dutch, Korean, and Thai languages involved in the process of translation/back-translation. In addition, to ensure that the measures employed in the study are cross-culturally invariant (Steenkamp & Baumgartner, 1998), we conducted confirmatory factor analyses (CFA) using AMOS 26.0 and checked whether items fit the variable (equal form invariance) and also whether the unstandardized factor loadings of each variable were approximately equal (equal factor loadings) across collectivistic and individualistic samples (Kline, 2011).

**Preliminary analyses**

Prior to test our hypotheses, we conducted two sets of preliminary analyses to check construct reliability and potential common method bias (CMB) of the study (Hair et al., 1998). With regard to the measurement reliability, Cronbach’s alpha were computed to examine internal consistency. All the measures in our samples demonstrated good reliability.
Next, we adopted the two steps approach suggested by Podsakoff et al. (2003) to overcome the potential issue of common method bias (CMB): (1) testing the Harman’s single-factor score, and (2) conducting CFA analysis. The test of Harman’s single-factor result indicated that a single factor did not account for most of the variance in all variables. The total variance explained by a single factor was 39.37% which less than 50% of the total variance. Accordingly, a confirmatory factor analysis (CFA) was run. The result from the CFA was consistent with the Harman’s single-factor result. Regression weight showed that all the items used in our study met the test of construct validity ($\chi^2(802) = 515.96; p < .001; NFI = .881; CFI = .905; TLI = .888; \text{RMSEA} = .073$, 95% confidence interval (CI) [.068, .077], suggesting an acceptable fit between the model and the observed data (Hair et al., 1998). Thus, CMB was not considered a concern in this study.

Moreover, we measured horizontal individualism as to check the degree of cultural collectivism-individualism at the personal level across the four countries. The manipulation checks indicated that American ($M = 5.51$, $SD = 1.07$) and Dutch ($M = 5.18$, $SD = .97$) participants scored high on this HI dimension than South Korean ($M = 4.28$, $SD = 1.05$) and Thai ($M = 4.56$, $SD = 1.07$) participants, $F(3,782) = 56.96$, $p < .001$. This implies that the participants from the United States and the Netherlands tend to be more individualistic than the participants from South Korea and Thailand. Hence, our manipulation check results confirm the validity of cultural classification based on the country where the participants lived in.

Results

Table 2 presents the means and standard deviations of the key variables across the four countries as well as all bivariate correlation coefficients. To test our hypotheses, we conducted a serial mediation analysis using Hayes’ PROCESS model 6 with 5,000 bootstrap samples (Hayes, 2013; see Figure 1). We standardized all data before the analyses to place all variables on a common scale (Gelman, 2008). The frequency of brand-related

Table 2. Descriptive statistics of key variables by national culture and bivariate correlations of variables.

<table>
<thead>
<tr>
<th></th>
<th>COL (KR/TH) (N = 399)</th>
<th>IDV (NL/US) (N = 403)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIVERSITY</td>
<td>.57</td>
<td>.63</td>
<td>.65</td>
<td>.66</td>
<td>.18</td>
<td>.17</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FB_USE</td>
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<td>1.34/1.05</td>
<td>4.51/5.79</td>
<td>1.27/1.24</td>
<td>.19**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CREATE</td>
<td>2.78/2.03</td>
<td>1.31/1.54</td>
<td>2.60/4.15</td>
<td>1.32/1.73</td>
<td>.15**</td>
<td>.35**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>4.28/4.56</td>
<td>1.05/1.07</td>
<td>5.18/5.51</td>
<td>.97/1.07</td>
<td>.12**</td>
<td>.31**</td>
<td>.30**</td>
<td>1</td>
<td></td>
</tr>
<tr>
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<td>1.01/1.87</td>
<td>4.14/4.21</td>
<td>1.08/1.29</td>
<td>.04</td>
<td>.18**</td>
<td>.20**</td>
<td>.14**</td>
<td>1</td>
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<tr>
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<td>203.7/663.18</td>
<td>355.83/855.41</td>
<td>296.79/541.44</td>
<td>256.83/</td>
<td>.07</td>
<td>.16**</td>
<td>.06</td>
<td>.04</td>
<td>.12**</td>
</tr>
<tr>
<td>CULTURE</td>
<td>-</td>
<td>-</td>
<td>903.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 COL = collectivistic cultures; IDV = individualistic cultures; KR = South Korea; TH = Thailand; NL = Netherlands; US = United States; DIVERSITY = audience diversity; FB_USE = Facebook use intensity; CREATE = the frequency of brand-related content creation; HI = horizontal individualism; EXTRAV = Extraversion; FB_FRIEND = the number of Facebook friends; CULTURE = national culture (0 = collectivistic culture, 1 = individualistic culture). 7-point Likert scale was employed to measure CREATE, HI, and EXTRAV. Simpson’s Diversity Index (see Beam et al., 2017) was used to measure DIVERSITY. **$p < .01$. (See Table A1 in Appendix for the details of measure.)
content creation was the dependent variable; national collectivism-individualism was the independent variable; audience diversity (M1) and intensity of Facebook use (M2) served as mediators.

**Overview of main effects**

The first hypothesis predicted that the more diverse the audiences of the users, the more intense their Facebook use would be. As expected, the results showed that the degree of audience diversity positively affected the intensity of Facebook use ($\beta = 1.31, p < .001$). Thus, H1 was supported. Furthermore, we tested the direct effect of Facebook use intensity of the frequency of brand-related content creation. Our results showed that the intensity of Facebook use positively influenced the frequency of Br-UGC ($\beta = .34, p < .001$). Thus, H2 was also supported. The results also supported H3, which stated that culture affected the degree of audience diversity ($\beta = .04, p < .001$). Notably, consumers living in American and Dutch individualistic cultures would have more diverse audiences in their network compared to consumers in South Korean and Thai collectivistic cultures.

**Culture, audience diversity, Facebook use intensity, and Br-UGC**

As presented in Table 2, national culture was positively correlated with the frequency of Br-UGC, suggesting that participants from individualistic cultures tend to create brand-related content more frequently than those from collectivistic cultures. H4 predicted that the effect of national culture on the frequency of brand-related content creation would be mediated by audience diversity and consequently intensity of Facebook use (See Figure 2a). The results revealed a significant indirect effect via both audience diversity and Facebook use intensity (indirect effect = .02, $p < .05$, $SE = .008$, 95% confidence interval (CI) [.007, .04]; direct effect = .63, $p < .001$, $SE = .11$, 95% CI [.41, .85]; total effect = .10, $p < .05$, $SE = .04$, 95% CI [.03, .18]). In other words, participants from American and Dutch individualistic cultures created content about brands more frequently on Facebook than participants from South Korean and Thai collectivistic cultures, with this effect being mediated by the diversity of their Facebook friend list and consequently Facebook use intensity, with both mediators having a positive effect. Although the results supported H4, audience diversity and Facebook use intensity did not fully mediate the effect of national culture on Br-UGC as the direct effect of national culture on the frequency of Br-UGC was significant ($\beta = .63, p < .001$).

Moreover, besides having an effect at the national level, we further analysed the effect of culture on Br-UGC at the personal level as cross-cultural researchers suggest that individuals in the same national culture might not always define their cultural identity exactly the same (Oyserman et al., 2002). Instead of assigning national culture as an independent variable, horizontal individualism (HI) was used in the analysis. The results of the PROCESS (model 6) macro analysis showed that, in line with the effect of national culture, individualistic participants generated content about brands more frequently on Facebook than collectivistic participants, with this effect being mediated by the audience diversity and consequently Facebook use intensity (indirect effect = .006, $p < .05$, $SE = .003$, 95% CI [.001, .012]; direct effect = .25, $p < .001$, $SE = .05$, 95% CI [.15, .35];
total effect $= .10$, $p < .05$, $SE = .02$, 95% CI [.06, .14]) (See Figure 2b). Hence, our findings suggest that audience diversity and Facebook use intensity partially mediate the effect of culture on Br-UGC both at the national and personal levels. Table 3 presents an overview of the analysis.

**Discussion**

Based on the responses of over 800 Facebook users living in South Korea, Thailand, the Netherlands, and the United States, we are able to validate and extend the research on online social relationships beyond the context of general SNS use (Ellison et al., 2011; Liu et al., 2016) to the more specific context of consumers creating brand-related content on Facebook. More importantly, the findings explain the underlying processes of consumers’ creation of Br-UGC with an emphasis on cultural differences. The key findings and directions for further research are discussed below.
Table 3. Mediating effect of culture on Br-Ugc at the national and personal levels.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency of Br-UGC (National level)</th>
<th>Frequency of Br-UGC (Personal level)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$95%$ CI</td>
</tr>
<tr>
<td><strong>Mediator Variable 1 (Diversity)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>.45</td>
<td>[.35, .56]</td>
</tr>
<tr>
<td>CULTURE</td>
<td>.04***</td>
<td>[.02, .07]</td>
</tr>
<tr>
<td><strong>Mediator Variable 2 (Facebook use)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.98</td>
<td>[2.21, 3.75]</td>
</tr>
<tr>
<td>CULTURE</td>
<td>.06***</td>
<td>[.001, .38]</td>
</tr>
<tr>
<td>DIVERSITY</td>
<td>1.31**</td>
<td>[.81, 1.81]</td>
</tr>
<tr>
<td><strong>Dependent Variable Model</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>.85</td>
<td>[−.09, 1.79]</td>
</tr>
<tr>
<td>CULTURE</td>
<td>.63***</td>
<td>[.41, .85]</td>
</tr>
<tr>
<td>DIVERSITY</td>
<td>.29</td>
<td>[−.31, .88]</td>
</tr>
<tr>
<td>FB_USE</td>
<td>.34***</td>
<td>[.26, .43]</td>
</tr>
<tr>
<td>GENDER</td>
<td>−.26*</td>
<td>[−.48, −.06]</td>
</tr>
<tr>
<td>AGE</td>
<td>−.18*</td>
<td>[−.33, −.04]</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>−.08*</td>
<td>[−.15, −.01]</td>
</tr>
<tr>
<td>INCOME</td>
<td>.14***</td>
<td>[.08, .18]</td>
</tr>
<tr>
<td>FB_FRIEND</td>
<td>.00</td>
<td>[−.0002, .0002]</td>
</tr>
<tr>
<td>EXTRAVERT</td>
<td>.15**</td>
<td>[.06, .25]</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>22.74***</td>
<td></td>
</tr>
</tbody>
</table>

$N = 802$; Mediator Variable 1 = audience diversity; Mediator Variable 2 = Facebook use intensity; CULTURE = Cultural collectivism-individualism; DIVERSITY = audience diversity; FB_USE = Facebook use intensity; FB_FRIEND = the number of Facebook friends; EXTRAVERT = Extraversion; PROCESS model 6 of Hayes with 5,000 bootstrap samples. **$p < .001$, ***$p < .01$, *$p < .05$.

First, in line with previous studies on an audience and Facebook use (Beam et al., 2017; Vitak, 2012), we found a positive effect of audience diversity on brand-related content creation on Facebook. Our findings extend the Vitak’s (2012) study by showing that having a more diverse network not only encourages people to become more active in consuming and sharing second-hand content, but also in producing firsthand content. Importantly, this is not only specific to news sharing (Beam et al., 2017) but also consumers’ generating content about brands (or Br-Ugc in our study). Moreover, as it has increasingly become common for consumers to present a positive image on Facebook by posting Br-Ugc (Smith et al., 2012), the study results imply that increased diversity in online social networks probably stimulates consumers to actively do this. Future research could extend these results by examining the relationships between audience diversity and self-presentation, and how they affect the creation of Br-Ugc.

Second, our study illustrates the differences between how consumers in collectivistic and individualistic cultures develop their online relationships. This extends previous cross-cultural research on information disclosure and self-presentation (Errmann et al., 2019; Lee-Won et al., 2014; Rui & Stefanone, 2013) by showing that audience diversity and intensity of Facebook use explain the effect of national culture on the frequency of Br-Ugc. The outcomes specifically suggest that the loose and flexible relationships emphasized in individualistic cultures tend to promote social interactions between a user and their diverse audience, making them more active in Facebook activities, and leading to more creation of Br-Ugc. This underlying process helps to explain how Facebook users in individualistic cultures take advantage of the diversity in their network to expand their social circles and to connect with wider groups of people partly by creating brand-related
information (Liu et al., 2016). However, people in collectivistic cultures might prefer to have a more closely-knit network with their current connections (Chu & Choi, 2011), probably because they tend to be more concerned about how they should behave to satisfy the expectations and preferences of different communities. Hence, as presented in our study, people in collectivistic cultures are less likely to have a diverse network and less likely to post personal information to everyone on Facebook, leading to a lower Facebook use and, a lower frequency of Br-UGC. Extending this line of reasoning, it would be of interest to consider whether there are conditions under these cultural differences in the audience diversity (e.g. privacy concerns, face saving, impression management). Future research could explore this phenomenon and its underlying mechanism in more detail.

Finally, the findings further contribute to cross-cultural research by showing that, not only national culture, collectivistic versus individualistic values that consumers hold also impact and characterize the nature of their social relationships online. Notably, regardless of the country they reside, consumers who hold more individualistic values appear to generate content about brands more frequently than the others who hold more collectivistic ones. The underlying process behind the frequency of Br-UGC is explained by users’ audience diversity, which subsequently leads to the more intense of Facebook use. Hence, despite the increased relevance of globalization and global consumer culture (Cleveland et al., 2015), our study’s results reveal that there are pronounced differences with respect to their cultural values, and these affect how consumers build or strengthen the relationships online, and ultimately impact the creation of brand-related content.

**Practical implications**

The findings from this study yield important insights for managing online marketing strategies. First, social relationships in an individuals’ network are crucial for consumers’ response to brands online. In particular, the diversity of the audience serves as one of the significant factors that drives consumers across cultures to publish content about brands on Facebook. Overall, circulating information about products or services in a diverse network tend to be perceived as more beneficial because consumers can enhance their perspectives towards products or services and exchange such information with others. Companies should consider providing a space for people to share their opinions and interests in a public manner (e.g. Facebook fan page) and stimulate more discussions with a larger group of consumers (e.g. adding Featured Likes to the fan page: Patel, 2018).

Nevertheless, global marketers need to keep in mind that, depending on their culture, people have different ways of developing their relationships, and consequently have different online communication behaviours, including when creating Br-UGC. As consumers in collectivistic cultures value a sense of connectedness and focus on maintaining their existing relationships, a specific type of SNS platform that allows users to easily limit their audiences or determine who receives a given content might make it easier for them to comfortably share their experiences about brands as well as to interact with their close contacts. Examples of this are WeChat in China, Line in Thailand and Japan, and Kakao Talk in South Korea. Marketers who operate in global markets, especially collectivistic societies, may need to consider also promoting campaigns on these local platforms to effectively communicate with the consumers. For consumers in individualistic cultures, however,
increased diversity in social networks is found to relate to the activeness and the frequency of Br-UGC. Hence, companies should take opportunities from these consumers to generate word-of-mouth by encouraging them to share the content with their networks. For example, offering an appealing social incentive (e.g. a customer referral program: share to your friend, get a discount coupon), or promoting social media influencer marketing strategy (e.g. brand endorsement program: invite users with high number of followers/subscribers to endorse brands) may be a great tactic as these consumers will be able to connect with others, enhance their self-image and social acceptance, as well as economically benefit from a company.

**Limitations and further research**

This study has some limitations that should be considered when interpreting the findings. First, even though we expected that relationships between consumers and their audiences would explain cultural differences in Br-UGC, there might be other factors than audience diversity that should be taken into account. As previous literature has suggested, social capital (Huang & Liu, 2017), tie strength, trust, and interpersonal influence (e.g. normative influences) can be focal predictors that characterize the nature of social relationships and influence user-generated content (Chu & Kim, 2011) especially across cultures (Chu & Choi, 2011). To extend our results, future research could investigate the influence of these social-related variables on Br-UGC.

Second, this study implies that most of Br-UGC is likely to be positive as consumers appear to engage with brands in order to present their positive image. Nevertheless, Br-UGC can be either positive or negative, and both kinds of brand-related content have been found to influence consumers’ brand perceptions and purchase intention (Christodoulides et al., 2012). Therefore, to validate and extend our study’s results, future research should investigate how message valence affects consumers’ creation of brand-related messages across cultures.

In addition, previous studies have noted that people with diverse audiences on Facebook manage their different audiences strategically by posting information visible to themselves only (Vitak, 2012) or employing Facebook friend lists to segregate their audiences (Marwick & boyd, 2011). Future research should look at the strategies consumers pursue to deal with audience diversity and investigate whether consumers consciously and carefully share the content with a specific audience.

Finally, while our study offers initial insights into how cultural values (e.g. horizontal individualism) influence the creation of brand-related content, the findings do not adequately capture the complexity of cultural values at the personal level. Future research could specifically examine other dimensions that potentially explain individual differences in online consumer behaviours, for instance, (independent versus interdependent) self-construal (Markus & Kitayama, 2010), (informational versus normative) normative influence (Bearden et al., 1989).

**Disclosure statement**

No potential conflict of interest was reported by the author(s).
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References


### Appendix

#### Table A1. Summary of the key measure reliability.

<table>
<thead>
<tr>
<th>Construct and measurement items</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Facebook use intensity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FACEBOOK USE INTENSITY</td>
<td>4.96</td>
<td>1.34</td>
</tr>
<tr>
<td>Facebook is a part of my everyday activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am proud to tell people I'm on Facebook.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook have become part of my daily routine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel out of touch when I haven't logged onto Facebook for a while.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel I am part of a Facebook community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would be sorry if Facebook shuts down.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s alpha (α)</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td><strong>Horizontal individualism</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORIZONTAL INDIVIDUALISM</td>
<td>5.62</td>
<td>0.91</td>
</tr>
<tr>
<td>I would rather depend on myself than others.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I rely on myself most of the time, I rarely rely on others.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often do my own thing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My personal identity, independent of others, is very important to me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cronbach’s alpha (α)</td>
<td>0.80</td>
<td></td>
</tr>
</tbody>
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