Personal values and travel social media use among Generation Z

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Abstract

Purpose – The purpose of this study is to examine how one’s social media use during travel, to connect and/or to update, is related to selected personal values among Generation Z. Hypotheses are proposed based on how values are related to two common dimensions: openness-to-change and self-enhancement.

Design/methodology/approach – A survey was conducted using existing and self-developed scales with 177 college students, a group of Chinese Gen Zers, at a public higher education institution in Macao, China.

Findings – Results show that community values and materialistic values have a significant influence on social media use, whereas family values do not. Between two distinctive social media uses, consumers with a stronger materialistic value are more likely to use social media to update. Subjects with a stronger community value are more likely to use social media to connect.

Originality/value – The study scrutinizes how mobile social media may be used in travel among Generation Z, who grew up with mobile devices and social media while forming personal values under the influence of families, communities and external environments. Travel destinations and services could streamline social media marketing efforts at those personal values that are relevant to their target markets. The results offer practical applications and directions for future research.

Keywords Personal values, Materialism, Social media, Generation Z

Paper type Research paper

Introduction

The rapid growth of information and internet technologies has fuelled the tremendous growth in mobile devices, which have been associated with the heavy use of social media (Brandt et al., 2017). How to incorporate social media in promotional effort has been an emerging issue among marketing practitioners. Digital Business Lab (2021) reported that, across Asia-Pacific, almost one-third of Gen Zers spend 6 h or more a day on their phones, while 73% expect to be communicated through social media about new products and promotions. The widespread availability of mobile devices and social media services, such as WhatsApp, WeChat, Facebook, Twitter, Instagram, among many others, have dramatically changed the way people communicate with others, especially among the younger generations. Auxier and Anderson (2021) found that among 18- to 29-year-olds, 84% use social media on a daily basis. Popular uses of social media include browsing and reading news, participating in online discussions, sharing information, creating content, among others.

One evolving issue of the growing popularity of mobile devices and social media services is how different generations adapt to the new phenomenon. While older generations, such as baby boomers, struggle to keep up, Millennials’ uses of social media have been an ongoing research issue with broad applications. Millennials, or Generation Y, were probably the first generation that witnessed the explosion of social media in their teens and young adulthood.
Previous research has documented the impact of social media on Millennials’ travel decision-making and behavior with significant findings and implications. As the Millennial generation matured, Generation Z (also Gen Z or Gen Zers), born between 1997 and mid-2000s as well as grown up in parallel with the explosive development of mobile devices and social media, emerges as the up-and-coming generation (Coughlan, 2020). Unlike previous generations, Gen Z may see mobile devices as a born-with by-product, a necessity, and an intimate artificial intelligent companion as they are highly dependent on their devices from waking up to bedtime. Gen Zers’ simultaneous personal growth in their young life, learning and forming personal values, with the fast growth of social media use presents an opportunity to examine how personal values and social media use might be linked.

Both personal values and social media have direct impact in travel behavior and decisions. Personal values are likely to influence how social media is used, while forming perceptions on destination image and opinions. By understanding how different personal values affect how social media is used, travel practitioners could use the knowledge in learning how to reach target customers effectively. The travel industry has been extensively influenced by social media with a paradigm-shifting effect on how travel is researched, planned and consumed, as proven by the collapse of some traditional travel services and the birth of new search and booking platforms, e.g. Kayak, Uber and Airbnb, among many others (Cheunkamon et al., 2020; Mkono and Tribe, 2017; Sakshi et al., 2020). Various travel social media platforms allow travelers to gather multimedia information from diverse sources and use fellow travelers’ shared experiences to prepare future trips while enhancing their own travel experience (Kumar et al., 2021; Roque and Raposo, 2016). Digital technology also allows the development of destination reputation and the solicitation of consumer opinions by spreading information and word-of-mouth advertising via social media (Song et al., 2021; Zeng and Gerritsen, 2014).

The present study sets forth to scrutinize the relationship between selected personal values and travel social media use among Generation Z. The popularity of social media presents both opportunities and challenges for destination managers who have to cope with the advancement in social media and use it to improve marketing effectiveness while meeting stakeholders’ expectations (Yang and Wang, 2015). Personal values can be seen as a driving force that motivates travelers. Understanding how various personal values are related to social media use in travel can help destination managers better choose target markets, determine positioning strategies and choose effective communication messages when marketing their products and services. Among limited research, Cohen (1979) found that travelling constitutes a form of self-actualization. The present study intends to further knowledge of the role of personal values in travel, specifically on how three personal values are related to travel social media use based on an established value framework. Finally, Generation Z is the up-and-coming mass market segment for the travel industry (Robinson and Schänzel, 2019). More research is needed to better understand how to prepare for this new generation of travelers. The results have important applications and implications for researchers and travel practitioners.

**Literature review and hypotheses**

This section discusses the literature on Generation Z, social media use and relevant personal values, including community values, family values and materialistic values.

**Generation Z**

Generation Z (Gen Z or Gen Zers) is commonly considered the subgroup of the population born between the mid-1990s and the early 2010s (Skinner et al., 2018). The importance of Gen Z cannot be ignored as about half of the world’s population is under 30 years of age (Smith and Puczkó, 2015). This cohort is expected to be different as they have grown up...
with a very different set of realities, e.g. the great recession, the pandemic, climate changes, in addition to mobile technologies. Gen Zers self-identify as loyal, compassionate, thoughtful, open-minded, responsible and determined whilst seeing peers as competitive, spontaneous, adventurous and curious (Bhalla et al., 2021; Seemiller and Grace, 2016). Their professional skills and income are the most critical factors; thus, a potentially stronger inclination for materialism and a pragmatically worldview. Whether the organization they worked for positively affected the world is the least important. They are also the generation to see co-habiting, shared economics as the norms while witnessing the increasing ecological concerns.

Gen Z has been found to be more technologically savvy, innovative, creative (Bassiouni and Hackley, 2014) than previous generations, and apt to use video communication, spend on smartphones and access social media (Thomas, 2011). Nourished by information technologies, the internet and social networks, Generation Z is the first generation that had used mobile devices from a very young age. They tend to seek out richer digital and gamified tourism experiences yet attends fewer cultural activities than Millennials. More importantly, social media has been an indispensable part of Generation Zers’ daily family and social life (Duffett, 2017).

Social media use in travel

Social media is a means of communication, interaction and social networking, encompassing messaging, posting updates on online personal space, such as Facebook or the like, and engaging in information sharing on social networking sites, such as forums, reviews and blogs. Sakshi et al. (2020) found significant influences of social media usage determinants, such as ease of use, trust and media richness, in travel planning. Li et al. (2007) identify six increasing participation levels in social media: creators, critics, collectors, joiners, spectators and inactives. Kaplan and Haenlein (2010) categorized six different categories of social media, including social networking sites, content communities, blogs, virtual social worlds, virtual game worlds and collaborative projects. These platforms enable users from various parts of the world to engage in communicative activities, such as searching information, rating products and services and initiating and participating in discussions (Mkono and Tribe, 2017; Sakshi et al., 2020). The use of social media on mobile devices is a relatively new yet a rapidly evolved phenomenon in the 2010s, shifting away from personal-computer-based applications. Mobile technologies enable such tasks to be accomplished instantaneously, from searching for travel information, alternatives and recommendations to maintaining connections with family and friends. Madden et al. (2013) found that Gen Zers use mobile devices not only to keep in contact but also to develop an online relationship with a broader virtual community, potentially with a different identity and as influencers (Bhalla et al., 2021). As a result, mobile devices have become the medium younger generations use social media.

Destination managers could use well-designed social media websites to create a favorable destination image and solicit positive opinions (Kim et al., 2017). One of the benefits of mobile technology is that it allows tourists to search for information instantaneously and stay connected by updating and sharing their own travel experience via social media applications and online sites, such as Travel Blog and Flickr while roaming in unfamiliar environments. Shared travel information and data could help fellow travelers plan trips and influence their travel decisions (French et al., 2017; Zeng and Gerritsen, 2014). The opinions and recommendations on social media are valuable for potential travelers in the travel planning and decision-making process (Lu et al., 2018). Travelers’ social media use could be used to predict the importance of user-generated content when forming expectations (Narangajavana et al., 2017). Kim et al. (2017) show that social media content might be used to form destination images in well-designed social media websites. In summary, mobile technologies have helped travelers in personalizing travel activities and enriching
travel experiences. Travel practitioners could take advantage of social media in disseminating information, influencing opinions, enhancing reputation and generating positive word-of-mouth advertising (Song et al., 2021).

Social media uses vary from before a trip, during a trip, to after a trip. For the present study, we focus on social media use during travel. Based on literature reviews and in-depth group interviews and discussions with a group of Gen Zers, two functions, to connect with others (Madden et al., 2013; Duffett, 2017) and to update personal experiences and knowledge (French et al., 2017; Zeng and Gerritsen, 2014) are frequently cited as the main reasons to use mobile social media during a trip. By connecting with others, social media is used to maintain and nurture relationships with family, friends and others. By updating shared personal experience, social media allows others to follow what one has been doing or has done, including recent accomplishments and acquisitions. While sharing travel information is important, it is more common to do so before or after a trip, less frequent and less important during a trip. Therefore, we will focus on the connection and updating functions in the present study.

**Personal values**

Personal values play an essential role in forming one’s perceptions, experiences and behaviors. Rokeach (1968) sees values as an enduring central belief, which guides one’s decisions and behavior over various situations to achieve a particular preferred end-state of existence. Values provide a sense of what is important and what is appropriate for an individual. They are learned beliefs strongly nurtured by one’s family, community and the environment, while playing a vital role in influencing one’s behaviors. A generation, such as Gen Z, is a national subculture that reflects its unique shared value priorities, beliefs, attitudes and behaviors (Inglehart, 1997; Egri and Ralston, 2004). Jacobsen and Barnes (2020) contend that, in the tourism industry, Gen Z is considered an incredibly important cohort so that their interest should be well understood by travel practitioners.

Personal values are diverse and have been studied extensively in various disciplines, e.g. social psychology and consumer behavior research, but scantily in travel research. Li et al. (2010) posit that tourist satisfaction and expectations of service quality include culturally embedded norms and values. They show that Chinese tourists highly appreciate traditional collectivist values. When travelling overseas, they purchase gifts for seniors, children and friends as an obligation. Based on a study on 60 students, Pizam and Calantone (1987) found that values successfully predicted between 41% and 81% of travel behavior. In an attempt to understand Norwegian tourists with different value systems on the hedonic consumption dimension, Mehmetoğlu et al. (2010) divided subjects by personal values into four distinct segments with unique sets of travel activity preferences and behaviors. Combining personal values and the theory of planned behavior, Ahmad et al. (2020) found that conservative values and self-transcendence positively affect one’s attitude, subjective norms and perceived behavioral control. In addition, they concluded that environmental consciousness positively moderates relationships between personal values and attitude toward eco-friendly destinations.

**An integrated view of personal values**

Schwartz (1992, 1994) provided a wide-ranging review of various personal values while developing a set of basic human values, including power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security based on a series of studies across more than forty countries. To integrate the understanding of personal values, two distinctive common value dimensions, openness-to-change/conservation (openness-to-change) and self-enhancement/self-transcendence (self-enhancement), are generated as the satisfactory representation of 10 different
personal values, which occupy relative positions on the two dimensions. While extending Schwartz's value framework in understanding relationships between materialistic values, collective-oriented values, and well-being, Burroughs and Rindfleisch (2002) include five specific values in addition to the ten values used by Schwartz (1992, 1994) to reproduce the same value dimensions successfully. Their research provides a good review and overview of personal values. In the present study, we will focus on selected, relevant values and the two common value dimensions as related to travel social media use.

Personal values have important impact on motivations, which, in turn, have influence on behavior. The two value dimensions, openness-to-change and self-enhancement, have important implications. The openness-to-change dimension relates to the tendency to accept different or new ideas, innovations and services. The self-enhancement dimension relates to the tendency be self-oriented vs other-oriented. Burroughs and Rindfleisch (2002) used a large set of values to estimate the two dimensions so that it is difficult to apply their approach for managerial actions because 15 different values were included. An ensuing issue is whether a more succinct approach is possible. Another managerial issue is whether a small number of values that have more direct applications in travel research and management could be used to recreate the same two-dimensional structure. A close examination of their frameworks and MDS plot reveals such possibility with three values: family values, community values and materialistic values.

Based on the two-dimensional map by Burroughs and Rindfleisch (2002), family values (low) and community values (high) differ on the openness-to-change dimension. The two values provide a clear contrast for the degree of openness. Materialistic values are loaded on the positive extreme end of self-enhancement, whereas both family values and community values are on the negative end. The three values occupy three unique relative positions that could be used to estimate the two-dimensional value structure without the presence of other remaining values (Figure 1). If this is the case, it represents an advantage in reducing data requirement. In addition, the three values, materialistic, family and community values, are commonly understood by consumers and have direct relevance to managerial decisions. In comparisons, other personal values might have less direct relevance in marketing and travel management. Furthermore, their positions on the two-dimensional map are less distinctive as the three selected personal values.

![Figure 1](image-url) Selected personal values on value dimensions

**Note:** Adapted from Burroughs and Rindfleisch (2002) to illustrate relative position
Family values

Family values have been defined as the value placed on nurturing and preserving a close-knit relationship with one’s immediate family (Faver, 1981; Burroughs and Rindfleisch, 2002). Family is the root of one’s upbringing and has an enduring influence on individuals. The definition of family is slowing evolving as the society adapts to modern variations of family compositions. A close review on the Traditional Family Scale by Burroughs and Rindfleisch (2002) revealed that some of the items were out of date, e.g. the gender inequality item. The importance of family reflects on family values, which are about developing and maintaining desirable relations with one’s family. Much of one’s early value system is derived from the interaction with parents, siblings and other family members who often serve as a source of life purpose. Broadbent et al. (2017) concluded that the most important personal values to Gen Z were helping their families and themselves get ahead in life. Family is the main source of one’s perceptions, beliefs and behaviors, including travel. Most travels in childhood were often with family. Therefore, both of our personal values and travel experience are often formed under the influence of family, in many cases, simultaneously.

Community values

We adopted the definition of community values by Burroughs and Rindfleisch (2002) as “the value placed on developing and maintaining relational ties with one’s local geographic community”. Community is also an evolving concept that has been defined by two characteristics: shared neighborhood in a geographic area and a shared social relationship (Glynn, 1986). However, such definition could be out of date due to the evolution in how people communicate and move about. Similar to the definition of family, with greater mobility and communication power, one’s community has gone beyond traditional geographical definition to include a network of people that we care about, are willing to spend time and effort in nurturing and maintaining relationships with and are willing to contribute financially for shared causes and issues. The importance of one’s community is reflected on community values, which are to develop and maintain ties with one’s community by sharing ideas for and making contributions to community improvement (Davidson and Cotter, 1997; Burroughs and Rindfleisch, 2002). Based on a student sample, Burroughs and Rindfleisch (2002) found that subjects with strong community values were more likely to know others by their first name, give more time and volunteer in community events. In travel, travelers often share travel experience and opinions with friends and community peers, while traveling with them sometimes. The community might exert more influence on travel decisions and behavior as travels age.

Materialistic values

We followed Richins and Dawson’s (1992) view in referring materialistic values as the importance that a person attaches to materials goods as a life value. Belk (1985) defined materialism as a personality trait associated with the possession of material goods and the lack of generosity and envy. Burroughs and Rindfleisch (2002, p. 349) view materialism as “the value a consumer places on the acquisition and possession of material objects” in that a highly materialistic individual believes that one’s well-being could be enhanced by the acquisition and possession of material goods. Materialistic values are likely to be formed and evolved under the influence of family, friends and personal reference networks, in addition to the outer environments. Prior research has shown that there is a negative association between materialism and satisfaction with family and friends (Richins and Dawson, 1992). In travel, materialism has been shown to have an impact on the choice of eco-friendly hotel options (Errmann et al., 2021) and a moderating effect on impulsive travel intention (Yao et al., 2021).
Value dimensions and travel social media use

Based on the two-dimensional map of personal values, the openness-to-change dimension is negatively associated with family values yet positively associated with community values, whereas materialistic values correspond positively to self-enhancement (Burroughs and Rindfleisch, 2002). A stronger self-enhancement could have a stronger desire to update and share one’s prized material possessions during a trip. In contrast, a stronger openness to change may facilitate the adoption of newer ideas and technologies, e.g. the mobile social media. Both mobile devices and social media are both relatively recent creations. Thus, their adoption could be directly related to the openness-to-change dimension. The lower end of the dimension is conservation, which could be a surrogate indicator for resistance to new innovations or new ideas. The self-enhancement dimension is the focus on self and related to one’s desire to show off material means vs to pursue spiritual happiness or nonmaterial means. A strong need for self-enhancement could potentially have a stronger desire to share and update one’s prized possession and experience with one’s social networks. On the other hand, a strong need for spiritual happiness might steer travelers toward destinations that enhance such internal gratification needs.

Research purposes

By incorporating personal values, we attempt to examine how selected personal values influence how mobile social media is used in the context of travel. It presents a rare opportunity to examine the interrelationships between personal values and mobile social media use for the first generation that grew up along with mobile devices and social media. As travel destinations and services rely heavily on social media marketing, travel managers could streamline promotional efforts at those personal values that are relevant to their target markets. We expect to see how different personal values affect mobile social media use while uncovering research implications for travel researchers and managerial applications for practitioners.

Hypotheses

The Gen Z may see mobile devices as necessary and an intimate artificial intelligent companion much more than the previous generations. We present hypotheses based on how Gen Z’s use of social media during a trip might be linked to related personal values such as family values, community values and materialistic values, as well as the two common value dimensions.

Family and Community Values on Overall Social Media Use: Gen Z is known as the “digital natives”, the “Facebook generation”, as well as the iGeneration (Garai-Fodor, 2019), with a strong willingness to spend money on technological innovations (Wood, 2013). Social media, risen with technological developments during Gen Z’s early life and part of the interaction with friends, family and others, becomes a vital feature for tourist behavior (Liao et al., 2021; Wood, 2013). Social media is often used to share family-related information and manage family issues to maintain a caring relationship with one’s immediate family, as well as to build and nurture the relationship with one’s personal networks, with which one has continuing social interactions and shared interests (Burroughs and Rindfleisch, 2002). Family values and community values are expected to have an overall positive relationship with the overall social media use respectively because of one’s desire to maintain and nurture relationships with family and community members:

H1. Family values are positively related to overall social media use.

H2. Community values are positively related to overall social media use.

Family Values vs Community Values: While both family values and community values are hypothesized to have a positive association with the overall social media use, the two values
vary in terms of their position on the openness-to-change dimension (Burroughs and Rindfleisch, 2002; Schwartz, 1994). Community values are associated with a stronger desire to accept changes or to accept new ideas to conform to evolving community views. A stronger family value suggests a preference for conservation, thus a lesser desire to change or adapt to new innovations. As mobile devices and social media are relatively young and technology-related, community values could surrogate as an indicator of openness to change, thus have a stronger, positive relationship with social media use than family values:

**H3.** Community values have a stronger positive relationship with overall social media use than family values.

**Materialistic values on overall social media use**

Mobile social media is a tool, which consumers can use to communicate, share information and create new relationships. In comparison with face-to-face communication, it is a platform that defines how one positions self the way she/he would like to be perceived. Richins (1987) contends that the media has a vital role in one’s materialistic values before the advent of mobile devices. Lenka (2014) showed how social media is connected to materialism among children. Tang et al. (2012) examined the concept of incentives in using social media and found that social media can increase one’s self-esteem. Colella et al. (2021) found that, among those high in materialism, luxury products are perceived as more luxurious when these are communicated on a social media platform. Tuominen et al. (2022) found materialistic values connect with status-seeking impression management on social media among young Finnish subjects through a structured phone survey. In a cross-cultural study, Thoumrungroje (2018) conclude a positive relationship between social media intensity and materialism, in that materialism mediates the social media intensity-impulsive buying relationship among South Korean subjects. As a result, a stronger materialistic value is expected to lead to greater social media use, and such use is mainly to update and share possessions and experiences in satisfying own self-enhancement needs:

**H4.** Materialistic values are positively related to overall social media use.

**H4a.** Materialistic values have a stronger relationship with the social media update function than with the social media connect function.

The research framework in Figure 2 illustrates the above inter-relationships and corresponding hypotheses. The results are expected to have important implications and applications to travel and marketing practitioners and tourism and marketing researchers.

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**Figure 2** The research framework

![Diagram of research framework showing relationships between Family Values, Community Values, Materialism, Social Media Use, To Connect, To Update]
Methodology

Existing scales were adapted for materialistic values (Richins and Dawson, 1992; Richins, 2004), family values and community values (Faver, 1981; Burroughs and Rindfleisch, 2002). Family values are operationalized with items that depict the importance placed on family relationships (Burroughs and Rindfleisch, 2002). Community values consist of items that are related to providing input on important community issues, willingness to contribute time and effort and willingness to contribute financially to community improvement (Davidson and Cotter, 1997). Materialism is operationalized along centrality, success and happiness, including items such as the importance of material possessions and money, the tendency to use money and goods in evaluating achievements and the desire to impress others with material goods, among others (Richins, 2004). Measurement items for travel social media use are self-developed based on literature review and in-depth discussion with a group of Chinese college students who qualified as Generation Zers. After compiling, screening and summarizing a list of various uses of social media, six common items were identified and retained. The six items constituted the general use of social media applications on mobile phones. Table 1 lists these six items by the likelihood of usage during a trip, including uploading photos to social media accounts, updating own social accounts, checking text messages, making calls, checking emails and writing travel blogs, in descending order from the most likely to use to least likely to use. Overall, the top three are significantly greater than the bottom three, whereas the last item, writing travel blogs, is significantly less than the other five items. Based on the nature of the adopted scales, established or self-developed, no serious instrumentation effects are expected. Questions are not considered sensitive nor personal. Harman’s one-factor tests did not show significant common method bias as no single factor explained more than half of variance. There were no experimental manipulations.

A five-point Likert scale, from strongly disagree to strongly agree, was used for family, community and materialistic values. A five-point scale of not at all likely to very likely was used for social media use items. The self-developed measurement items were evaluated by eight tourism and marketing scholars and practitioners from Macao and the USA to review their face validity. Modifications were made based on provided comments and suggestions in two iterations. An English version of the survey questionnaire was first developed by the authors and revised through several iterations of translation process, including back translations and parallel translations. After several rounds of revisions, both English and Chinese versions were sent to external fellow tourism and marketing researchers for comments and revisions. The traditional Chinese version was then edited and revised into the final version to be used by the selected study respondents, students at a Macau public higher education institution. Pilot studies were carried out with a group of potential subjects, who filled out a questionnaire and participated in group interviews, to cross-validate survey questions with minor revisions. The overall process took over three months to complete. The student subjects are of convenience to the authors, born around the year 2000, consistent with the prevailing definition for Generation Z. The survey was described as a travel interest

<table>
<thead>
<tr>
<th>Mobile social media use</th>
<th>n</th>
<th>Mean</th>
<th>SE</th>
<th>Pairwise Diff</th>
<th>SE (Diff)</th>
<th>p (diff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Uploading photos to social media accounts</td>
<td>177</td>
<td>5.34</td>
<td>0.120</td>
<td>0.04</td>
<td>0.176</td>
<td>Insig.</td>
</tr>
<tr>
<td>b. Updating social media accounts</td>
<td>177</td>
<td>5.30</td>
<td>0.129</td>
<td>0.06</td>
<td>0.174</td>
<td>Insig.</td>
</tr>
<tr>
<td>c. Checking text messages</td>
<td>177</td>
<td>5.25</td>
<td>0.117</td>
<td>1.00</td>
<td>0.181</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>d. Making calls</td>
<td>177</td>
<td>4.25</td>
<td>0.138</td>
<td>0.11</td>
<td>0.194</td>
<td>Insig.</td>
</tr>
<tr>
<td>e. Checking emails</td>
<td>177</td>
<td>4.14</td>
<td>0.136</td>
<td>0.91</td>
<td>0.200</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>f. Writing travel blogs</td>
<td>177</td>
<td>3.23</td>
<td>0.146</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Notes: *Pairwise Diff are pairwise differences, which are differences between two consecutive means
A total of 210 questionnaires were distributed, resulting in an effective sample size of 177 after screening out those that do not meet social media use and travel requirements, among others. As suggested by Hair et al. (2006), for the moderate effect size, power reaches acceptable levels at sample sizes of 100 or more for alpha levels of both 0.05 and 0.01. A sample size between 100 and 200 has been recommended, with 200 being a "critical size" (Jöreskog et al., 2001).

A factor analysis was conducted on the six social media use items, resulting in two distinctive factors, namely, to connect (checking text messages, making calls and checking emails) and to update (updating social media account and uploading photos), with 65% of variance explained, after removing writing travel blogs due to the low score (Table 2). The low score for writing travel blogs indicates that sharing travel information is less important during a trip. A one-factor solution, explaining 45.5% of the variance, was also obtained as the surrogate for the overall social media use.

Both family and community values used scales by Burroughs and Rindfleisch, (2002) with seven and nine items, respectively, as shown in Table 3. Materialism has nine items, originally by Richins (2004), as shown in Table 4. Factor analyses were also carried out on items on family values, community values and materialistic values. Factors were extracted by principal component analysis with all factor scores greater than the suggested cut-off value of 0.4 by Costello and Osborne (2005, p. 4). All subject-to-item ratios are great than 10, the recommended values by Nunnally (1978, p. 421) and supported by Costello and Osborne (2005). The results are satisfactory with 49% and 50% of variance explained and Cronbach’s alpha values of 0.78 and 0.87 for family values and community values respectively (Table 3). An overall value from the one-factor solution derived from each scale was used for analysis.

Materialistic values were measured using a nine-item scale by Richins (2004) with three components of centrality, happiness and success. The reliability of the overall materialistic value is supported by a Cronbach’s alpha value of 0.861 with 45% of variance explained, though a factor analysis could not replicate the three-component factor structure. Therefore, only the overall materialistic value was used and analyzed in the present study (Table 4).

Results

As H1 and H2 are about relationships between two variables, a correlational analysis, the equivalent of a simple regression analysis, was carried out to find the correlations among the studied constructs. Surprisingly, family values fail to yield a positive relationship with social media use. H1 is not supported. As hypothesized, community values have a significant, positive correlation with the overall mobile social media use (p < 0.01), supporting H2. A one-sided t-test was carried out to test the difference between community values and family values in their associations with social media use, yielding a significant difference (p < 0.05). Thus, H3 is supported, that is, the overall social media use has a stronger relationship with community values than with family values.
A correlational analysis also revealed that respondents with stronger materialistic values are more likely to use social media in travel (Table 5). H4 is supported. A follow-up t-test showed that materialistic values have a significantly stronger association with updating than with connecting at the 0.01 level. H4a is supported. Those with stronger materialistic values are more likely to use social media to update than to connect.

**Discussion and conclusion**

The present study contributes to the literature by providing the insights into how personal values are related to travel social media use. The relationships between personal values
and mobile social media use during a trip were explored in the context of travel among a
group of Gen Zers, college students in Macao. Unexpectedly, family values did not yield a
significant relationship. Community values have a significant relationship with social media
use, as well as having a stronger relationship with social media use than family values. In
addition, subjects with higher community values are more likely to use social media to
connect than to update during a trip, consistent with the findings by Liao et al. (2021).
Materialistic values also have a significant relationship with the overall social media use, as
well as more likely to update than to connect. This result is consistent with the findings by
Thoumrungroje (2018) who found a positive materialism-social media intensity relationship,
as well as the conclusion by Colella et al. (2021) that social media platform is an effective
means to enhance the quality of luxury products among those with high materialistic values.
Similarly, Tuominen et al. (2022) found that materialistic values are linked to status-seeking
impression management on social media. The overall results are consistent with how the
three values are related to the two common value dimensions of openness-to-change and
self-enhancement. The lack of association with family values is not necessarily inconsistent
as family values were projected to be on the low ends of both dimensions, which were
proposed to represent the usage and the adoption of mobile social media.

Overall, an interesting pattern was found, that is, using social media to connect is
associated with a higher community value, and to update is associated with a higher
materialistic value. Such contrast is consistent with the notion that community values
and materialistic values differ on the self-enhancement/self-transcendence continuum. As
materialistic values are loaded with self-enhancement, updating social media accounts and
uploading photos could be viewed as self-enhancement activities. Similarly, community
values are higher in self-transcendence. Being connected with others shows that an
emphasis on nurturing relationships could be a form of self-transcendence. Those who are
high in self-transcendence might look for destinations that offer spiritual experience, e.g.
learning yoga or learning an exotic religion such as Buddhism, that leads to satisfaction that
could not be met by material goods. An interesting pattern emerges based on the above
(Figure 3), showing how the two value dimensions are related to the connecting and
updating functions of social media. Finally, a follow-up multidimensional analysis was able
to reproduce the two-dimensional structure satisfactorily using the three selected personal
values. It illustrated the potential to examine how personal values affect other constructs
without measuring all 15 values used by Burroughs and Rindfleisch (2002). It is also
possible to estimate other personal values using the three personal values employed in the
present study based on their relative positions on the two value dimensions.

The current study is not without limitations. First, the present study is limited in its selected
sample, college students, who are a small subset of Gen Z, limiting the generalizability.
Replications are needed to extend the validity to other populations. The relatively small
sample size might affect the overall reliability, which could potentially be improved with a
larger sample size. However, a larger sample size could yield a small but significant effect
size, which might not be meaningful. In balancing the relationship between sample size and
effect size, Hair et al. (2010) maintain that a sample size to variables ratio of 20:1 as
desirable, 10:1 as acceptable, and 5:1 as minimum. We evaluated sample adequacy at
three levels, individual constructors, individual hypotheses and the overall model. For

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Correlation analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Family values</td>
</tr>
<tr>
<td>Social media use overall</td>
<td>0.121</td>
</tr>
<tr>
<td>Social media connect</td>
<td>0.120</td>
</tr>
<tr>
<td>Social media update</td>
<td>0.072</td>
</tr>
</tbody>
</table>

Notes: n = 177; ***Correlation is significant at the 0.01 level (1-tailed)
individual constructs, the ratios vary from 19.7:1 (materialistic value) to 35.4:1 (social media use). For individual hypotheses, the ratios vary from 8.4:1 (Hypothesis 3) to 14.8:1. (Hypothesis 1). Hence, for individual hypothesis testing and individual constructs, the sample size should be considered acceptable. When considering the research framework as a whole, the overall ratio is 6.3:1, meeting the minimum. Hence, at all three levels, the sample size meets respective thresholds as suggested by Hair et al. (2010) while avoiding significant, yet small effect sizes.

As Gen Zers continue to progress, a longitudinal study with repeated observations over an extended period will be needed to capture Gen Zers’ evolving travel behaviors. The use of measurement scales originally developed in one language setting (American English) in one culture might not be replicable to another language setting (traditional Chinese) in another culture. Such limitation might help explain the failure in reproducing the three components of materialism. Finally, values are evolving as suggested by the need to update scale items for family values by Burroughs and Rindfleisch (2002) and the present study.

The present study provides empirical support on the use of social media by Gen Z in travel and how such use is influenced by family values, community values, and materialistic values. Two unique social media functions are presented, to connect and to update. The importance of each social media function is compared and contrasted among the three values examined with interesting results. Borrowing the framework by Schwartz (1992, 1994), we illustrate how the two social media functions correspond to the two underlying value dimensions. It fills an important gap in how personal values and travel social media use are related among the up-and-coming Gen Zers.

For managerial implications, recent tourism and hospitality research has addressed social media’s role in tourists’ decision-making, tourism operations and management (Sigala et al., 2012). Past research has demonstrated that social media and different forms of online communications significantly affect travel planning (Xiang et al., 2015). There is a persistent generation gap between the traditional and modern tourism operators. The traditional travel intermediaries are facing the challenge of winning the heart of younger customers, who rely on social media heavily. As social media has become a dominant destination marketing tool, destination managers may use it to get a deeper understanding what the tourist likes and dislikes (Fu et al., 2020), as well as to enhance their destinations’ sustainable competitive advantages (Pike and Page, 2014). Newer travel services may target at travelers with a stronger community value as such travelers are more open to changes. Learning how Generation Z uses social media in travel is a must-to-do task for destination
marketers. By understanding how various personal values affect social media use, managers could design effective communication campaigns that focus on influential personal values. Future replications with diverse samples are needed to render more support for the research results found in the present study. Future research could further link the studied constructs with specific travel-related decisions, such as travel motivations and destination choices.

References


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