An Assessment of Generation Z's Preferences for Guest-Facing Hotel Technologies

Jennifer Jaimes[1], Mehmet Erdem[1], ChihChien Chen[1] and William Doyle[2]
[1]William F. Harrah College of Hospitality, University of Nevada Las Vegas, USA
[2]The Honors College, University of Nevada Las Vegas, USA

Corresponding Author: Mehmet Erdem
Corresponding Author's E-mail: mehmet.erdem@unlv.edu

Abstract
Generation Z, also commonly described as Digital Natives, is a notable emerging market for hoteliers. Given the ever-evolving nature of the consumers, existing marketing strategies may not always be effective for incoming generational cohorts. This exploratory study submits that examining Generation Z members' perceptions on guest-facing hotel technologies could yield useful information for new marketing strategies. The findings establish that guest-facing technologies is an important consideration for the members of Generation Z when selecting a hotel accommodation and they are willing to pay more for a hotel property that offers them. However, the level of perceived importance of such technologies varied depending on the functionality the particular technology offered in the context of a hotel stay.

Key Words: Generation Z; Digital natives; Hotel technology; Guest-facing technology.

1.0 Introduction

The U.S. lodging industry is a highly competitive market with over 50,000 lodging facilities (AHLA.com) and an estimated five million-plus rooms available for guests to choose from (STR Global Hotel Study, 2018). Traditionally, lodging facilities are classified as being either full-service or limited service and often described by the target market they serve, i.e., casino-resort, airport hotel, convention hotel, bed, and breakfast, etc. (Kasavana, 2017). Despite its size, capturing and retaining a market share in the lodging industry is no easy feat and requires a purposeful marketing strategy and plan (Morrison, 2009). As one would expect, hoteliers do not shy away from investing in advertising to attract guests to their respective properties. It is reported that the ad-spent for the hotel industry in 2018 had exceeded 1.66 billion U.S. dollars (Guttmann, 2019).

Scholars have examined marketing efforts, strategies, and related planning issues in hospitality, including the lodging industry (Bowen & Sparks, 1998, Yoo, Lee & Bai, 2011) and offered solutions and suggestions to hoteliers to effectively market their properties. One suggested marketing strategy is to focus on technology amenities, i.e. in-room technologies, guest-facing technologies, etc. (Cobanoglu, Berezina, Kasavana and Erdem, 2011; Bilgihan, Okumus, Kwan, 2011; Lorden and Erdem, 2015) in order to positively influence customer experiences while increasing revenues (Jung et al., 2014). In fact, the Lodging Approval Requirements and Diamond Rating Guidelines of AAA were updated to include guest-facing technologies as

one of the guidelines for consideration (Hospitality Technology, 2018). Some of the marketing strategies suggested by scholars include staying ahead of technology adoption curves and deploying information and communication technologies (ICTs) like Amazon Echo, Google Home, and Smart TVs that have been adopted by consumers in their day-to-day lives to create enhanced guest experiences (Beldona et al., 2018). Additional research findings suggest that a guest's selection of one hotel over another is impacted by the guest room technologies in place (Erdem et al., 2019), and can positively influence consumer willingness to pay higher costs due to increased perceived behavior control (Jung et al., 2014).

Despite guest preferences typically tending to fluctuate significantly across industry segments and consumer demographics, Gallup's Hospitality Industry study revealed that guests from across all segments were willing to pay more for specific technological amenities, such as improved Internet connectivity, updated televisions, and additional HD content within the room (Yu & Timmerman, n.d.). When utilizing technology to gain a competitive advantage in the market, recognizing innovative, promising, sophisticated, and leading technology is essential to hospitality organizations including hotels (Beldona et al., 2018).

Another approach for successfully marketing lodging properties is to focus on generational differences and preferences among hotel guests (Bilgihan, 2016). Bowen and Chen (2015) tested different loyalty models to identify preferential differences between Baby Boomers and Millennials (Generation Y). Because "What Millennials desire is 180 degrees different from the desires of Baby Boomers" (Bowen & Chen, 2015); they concluded that hotel products and service delivery systems need to change from original designs if hotels want to develop loyalty from a new incoming generation. Generation Y, otherwise known as Millennials, are the pioneering generation that favors and is extensively influenced by the benefits associated with technology. Their habits and behaviors as consumers are frequently surveyed and recorded in an attempt to analyze the expected influence of technology over, what will be, "the most dynamic tourism market" throughout the next decade (Schiopu, Padurean, Tala, Nica, 2016).

Despite the above-mentioned emphasis on the Millennials, Generation Z represents the fastest growing generational market segment in the travel industry (Biesiada, 2018). Considered to include individuals born after 1995, Generation Z members differ from previous generations for being the first generational cohort to have been born and raised in a digital era where technology was unavoidably present in almost every aspect of their life. Consequently, they have expectations for digital connectivity, demands for technology efficiency, clarity, and natural ease and access to instantaneous information (Biesiada, 2018). To the best knowledge of the authors, there is no published scholarly work that focuses on identifying and analyzing the technology perceptions and preferences of hotel guests who belong to Generation Z.

Several studies that evaluated in-room technological amenities acknowledge the need to further examine and segment the guest market utilizing a variety of characteristics (Erdem et al., 2019). As more and more of the Generation Z cohort continues to enter into adulthood and acquire discretionary income, brands are expected to develop an increased interest in seeking out data to effectively reach them ("Navigating," 2017). Thus, having more information about this generation's attitudes, perceptions, and behaviors will be useful for businesses, including the hotel industry.

Given the above-mentioned trends and the potential Generation Z represents for the hotel industry, the purpose of this study is to explore and assess Generation Z hotel guests' perceptions of guest-facing technologies and study their preferences for such technologies.

2.0 Literature Review

Generation Z, which follows the Millennials, is described as the group of people born between 1996 and 2010 (Generation Z, n.d.). Defined first as "Digital Natives", Generation Z members are considered to be "native speakers" of a digital language established by computers, mobile devices, and the Internet. (Prensky, 2001). Digital Natives have been engulfed by technological influences since they are born, extending through all aspects of daily life. There are few technological amenities they are uncomfortable with; Generation Z was raised in a world that has harbored a life dependent on connectivity, which is popularly carried out through online mediums that encourage the sharing and distribution of information (Desai & Lele, 2017). As an entirely new group of consumers, they have never experienced a world prior to the era of smartphones (Lyon, 2010) and unlike their predecessors, have higher expectations of brand output and performance. The role of technology in their life is differentiating them from previous consumers by creating individuals who think and process through information differently (Prensky, 2001). Digital Natives are proving to develop as a "throwback generation" that is combining consumer behavioral elements of previous generations but adding attitudes and beliefs influenced by technology (State of Gen Z, 2017). They expect to have control over instantaneous interactivity and have strong desires for engagement (Autry Jr & Berge, 2011). According to a study conducted by Expedia Group Media solutions, 66% of Generation Z travelers are indecisive of the exact destination they would like to travel to. While possibilities like cultural experiences, once in a lifetime opportunity, and the planned itinerary for the trip can influence a destination choice, 77% of surveyed Generation Z members are open to "destination inspiration" through appealing deals, images, and videos on social media (Lindberg, L. & Expedia Group Media Solutions, n.d.). This is an important aspect to note for those interested in marketing to Generation Z via an optimal channel or platform.

The increasing expectations of guests is going to challenge the lodging industry to recognize and implement new emerging technologies as guest-room technologies (Bilgihan, Cobanoglu, & Miller, 2010). The continued advancement of technologies will result in it being the most critical driving change that will disrupt the hospitality industry regardless of size, location, or industry segment (Olsen & Connolly, 2000). The significance of technology lies in that its presence is directly associated with guest behaviors, like revisits, and is directly correlated with positive guest satisfaction (Cobanoglu et al., 2011). When continuous, the integration of new guest-facing technologies is projected to help improve the guest experience (Bilgihan, 2016) by establishing a positive image and adding perceptional quality to the service of the lodging establishment (Seric, Gil-Saura, Molla-Descals, 2016). Technology available in hospitality businesses is sometimes marketed as a value-added service. As a type of value-added service, hotel technology amenities have the potential to establish differentiation and, not only improve guest satisfaction but build loyalty in guests' lodging preferences (Bilgihan, et al, 2016).

Innovative hotel technology amenities targeting specific guest preferences include the availability of mobile devices in the room, such as tablets and BYOC - bring your own content capabilities to stream content (Bilgihan et al., 2016; Erdem et al., 2019). The similarities between these amenities lie in the extent of impact they have in daily consumer lives. In their study, which offered a futuristic perspective, Singh and Kasavana (2005) reported that guests expect in-room hotel technology amenities to be comparable to, if not reflect, those they use on a regular basis. The importance and acceptance of guest-room technologies grows as dependency on developing technology grows; understanding this, hotels need to create an experience that is better than what guests have at home in order to prosper in a competitor dense environment (Beldona et al., 2018; Bilgihan et al., 2010). This is also supported by the Cobanoglu et al. (2011) study, which has established the extent of the impact technology-based amenities have on how familiar consumers are with the application through personal use. Given the level of use and familiarity Generation Z has with technology, it will be prudent to further explore their perceptions of guest-facing technologies in hotels.

3.0 Methodology

Research literature relevant to guest-facing hotel technologies and in-room technologies were carefully reviewed and technology items relevant for the purposes of this study were identified. For the purposes of this study, in-room technology amenities and guest-room technologies are described as guest-facing technologies and the latter term has been used for consistency when defining and describing the technology items for the participants in this study. The review of literature generated a list of 22 guest-facing technology items that are offered to guests across a variety of hotel segments.

Collecting data through an online survey was determined to be the best method of data collection from members of the targeted group due to their comfortability with utilizing technology. Thus, an online survey was developed to assess the importance of the guest-facing technology items on a 5-point Likert scale along with demographic questions as well as questions that inquired about respondents' social media platform preferences.

The target population for this study is members of Generation Z who have had at least one hotel stay in the last twelve months. The Qualtrics online survey platform and its services were employed for data collection. The nonprobability sampling technique of purposive sampling was employed to reach qualified respondents via a Qualtrics panel whereby an invitation that included the link to the online survey was generated and distributed. Two screening questions were used when designing the survey. The first screening question was about the age of potential respondents to confirm that only those who qualify as being in the Generation Z cohort was included. The second screening question ensured that respondents had at least one hotel stay experience in the last 12 months since interaction with guest-facing technologies in a hotel setting is relevant for the main purpose of this study. Only qualified respondents were able to continue the survey. The survey was launched in the fall of 2019, and a total of 106 qualified responses were collected. Descriptive data analysis was carried out to analyze the findings, and the results were organized accordingly.

4.0 Results

First, the profile of respondents was analyzed. Most of the respondents were teenagers and some were young adults. A majority of respondents (74%) were born between the years of 1999 and 2001. The remaining (26%) were born between 1996 and 1998. Sixty percent of the respondents self-identified as female while the remaining 40% self-identified as male.

In terms of the highest educational level attained, 74% of respondents indicated having attained some college education or an associate degree, while the remaining indicated having already earned a college degree. Respondents were predominantly employed part-time (54%), with 22% identifying as being employed full-time and 18% being unemployed. An overwhelming majority of respondents, 86%, identified their primary purpose of travel in the past 12 months as being leisure travel.

Half of the respondents (50%) indicated that they have had three or more hotel stays within the last 12 months. About 32% of respondents indicated that they had two hotel stays within the last year, while 18% responded that they have had only one hotel stay within the same time frame. Nineteen percent of the respondents stayed a total of one night at a hotel in the last year. Forty four percent of the respondents indicated that they have stayed two nights, while the rest has stayed three or more nights at a hotel in the last twelve months. The participants were also asked to report the number of hours spent in the hotel room per day during their last stay. On average, each respondent spent about 10 hours a day in her/his hotel room.

Since several relevant research studies and industry reports indicated that Digital Natives access their information, including search efforts for booking a hotel (Lindberg, L. & Expedia Group Media Solutions, n.d.),

the respondents were asked about their use of common social media platforms and the frequency of use for such platforms. Instagram, YouTube, Snapchat and Facebook were the top four most commonly used social media platforms of the participants (Figure 1).
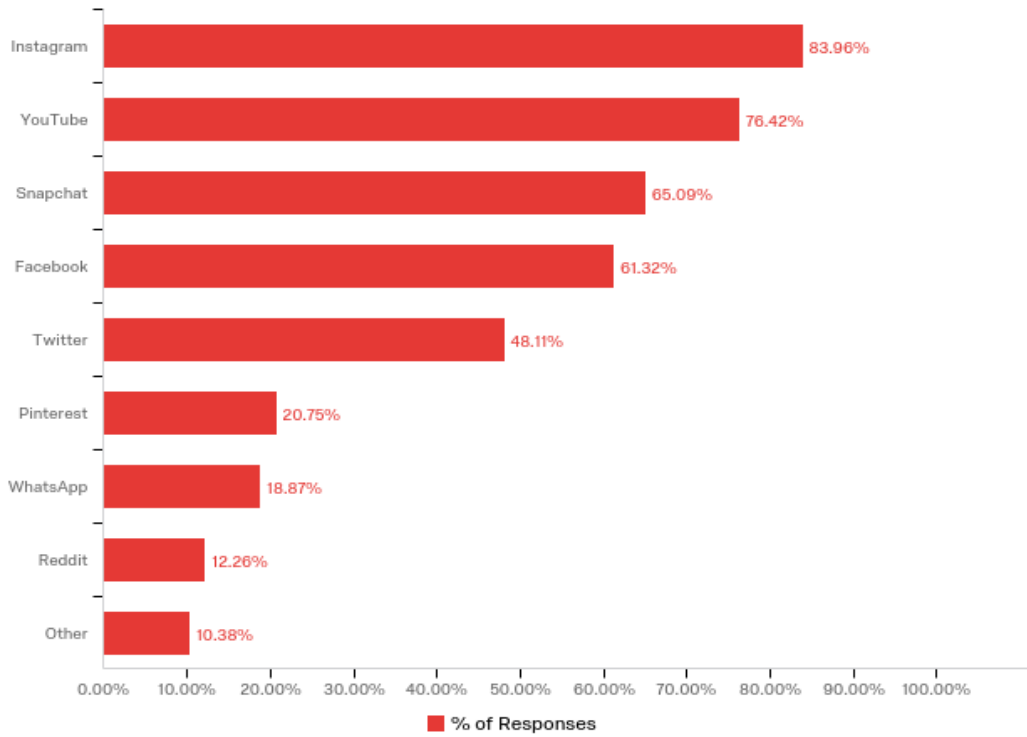

Figure 1. Use of common social media platforms

In order to determine the respondents' perceived importance of guest-facing technologies, they were first provided with two statements (Figure 2) and asked to indicate their level of agreement with each sentence. Nearly 40% of the respondents indicated that the availability of guest-facing technologies at a hotel property would impact their booking decision. Further, about the same number of respondents suggested that they would be willing to pay more for a hotel property that offers guest-facing technologies.
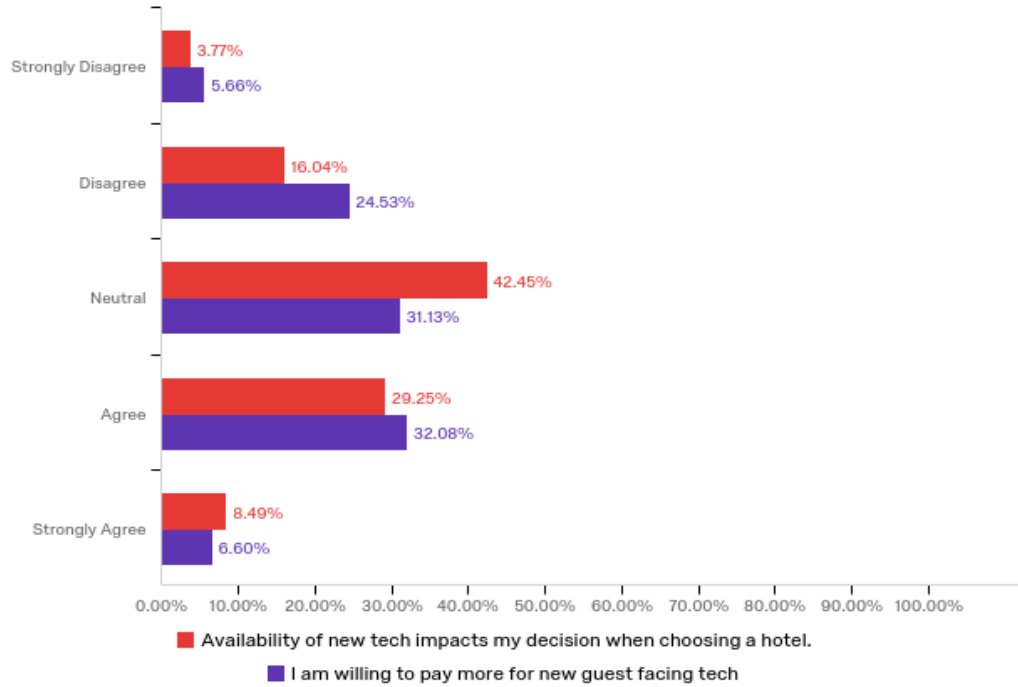
Figure 2. Influence of Guest-Facing Technologies

With the intention to further explore the participants' perceived importance of specific guest-facing technology items, the respondents were provided with a list of 22 items and asked to indicate the importance of each item for them (Table 1.). Hotel guest-facing technology offerings such as having a mobile device friendly website, the ability to check-in early via a mobile device, providing accessible USB outlets, and the ability to connect multiple mobile devices in the hotel room were rated as items of considerable importance. Providing a game console in the hotel room was rated as the least important guest-facing technology item.

#	Guest-Facing Technology Items	Minimum	Maximum	Mean	Std Deviation	Count
1	Mobile Website	1.00	5.00	4.07	0.88	106
2	Early Check-In Function through Web Site(s)	2.00	5.00	3.95	0.74	106
3	Early Check-In Function through Mobile-apps	2.00	5.00	4.00	0.86	106
4	Personal Mobile Device to Lock/Unlock Doors (e.g. Smart-Phone)	1.00	5.00	3.33	1.01	106
5	In Room Control Panel	1.00	5.00	3.45	1.05	106
6	RFID Key Cards	1.00	5.00	3.46	0.91	106
7	Docking Systems for Devices	1.00	5.00	3.40	1.01	106
8	High Definition Television Content	1.00	5.00	3.38	1.10	106
9	Increased Bandwidth	1.00	5.00	3.60	0.96	106
10	Accessible USB Outlets	2.00	5.00	4.25	0.87	106
11	Ability to Connect multiple Wireless Mobile Devices in the Room	1.00	5.00	4.32	0.82	106
12	Electronic In Room Safe	1.00	5.00	3.67	1.08	106
13	In Room Game Console (XBOX)	1.00	5.00	2.30	1.07	106
14	Ability to View Guest Folio/Bill	1.00	5.00	3.82	0.88	106
15	Pay Per View/Video on Demand	1.00	5.00	2.62	1.17	106
16	Universal Battery Charger	1.00	5.00	3.71	0.96	106
17	Availability of Tablet Devices for Room-Service	1.00	5.00	3.01	1.13	106
18	Express Check in-Check Out Through Smart TV	1.00	5.00	3.26	1.08	106
19	Bring Your Own Content (BYOC) Capability	1.00	5.00	3.23	1.06	106
20	Voice-enabled Personal Assistants (e.g Amazon Echo, Google Home, etc.)	1.00	5.00	2.64	1.17	106
21	Virtual Concierge (via TV or Mobile Device)	1.00	5.00	2.75	1.06	106
22	Delivery Robots for Room-Service	1.00	5.00	2.43	1.10	106

Table 1. Perceived Importance of Guest-Facing Technology Items

5.0 Discussion and Implications

The results show that Generation Z places considerable importance on guest-facing technologies that are accessible through their mobile devices and offer convenience. Lack of emerging technologies such as smart-speakers (voice-enabled AI) and robotics are not necessarily deal-breakers for this generational cohort when they make a hotel selection. Furthermore, the results refute some of the reported assumptions about Digital Natives' perceived significant importance on technologies that enable 'bring your own content', i.e. ability to stream content from personal subscriptions to content providers such as Netflix.

Overall, guest-facing technologies seem to be an important item of consideration when members of Generation Z shop for a hotel stay. The findings even indicate that they are willing to pay more for access to such

technologies. However, as demonstrated in Table 1, not all guest-facing technologies are equally important for the Digital Natives. The hoteliers have to pay attention to such differences of perceived importance across the variety of guest-facing technology items and note the preferences of guests when designing marketing campaigns that target members of the Generation Z.

The use of social media platforms to access information is a well-known habit of Digital Natives (Biesiada, 2018; Lindberg, L. & Expedia Group Media Solutions, n.d.). Although the focus has not been on Generation Z's social media use habits, scholar have studied the use of social media platforms, such as Facebook, and its use as a marketing tool for hotels (Leung, et al, 2017). However, the findings of this study show that Instagram, YouTube and Snapchat are more popular choices for Generation Z than a platform such as Facebook which is very popular with the Millennials. In fact, Millennials use Facebook more than any other platform (Durfy, 2019). However, 44% of Generation Z individuals check their social media feeds, primarily through Instagram, on an hourly basis, and use social media more to receive news, entertainment, and communicating through private messages (Durfy, 2019). Future research studies on how to effectively market hotel products and services to Generation Z should take into account that their preferred choice for social media platforms are different from previous generations and the social media messaging may have to be modified accordingly to adopt to these new platform preferences.

This exploratory study contributes to the literature by offering previously not examined information on Generation Z's preferences for guest-facing technologies in the context of a hotel stay. The findings may be helpful for hoteliers who wish to target the Generation Z market and looking for pragmatic information on how to best promote their respective properties to this particular market.

6.0 Limitations

Future studies could further examine the reported perceptions through a larger sample size, by asking more detailed and open-ended questions. Researchers could additionally examine the role of guest-facing technologies and their potential impact on the booking decision of generational cohorts by focusing more on the revenue generating potential of the presence of such technologies at properties. The role of social media platforms in accessing detailed information about hotels and their offerings as well as messaging strategies for Generation Z could also be examined.

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