

# The relationship between service quality and customer satisfaction among millennials in the hospitality industry: Technology adoption propensity (TAP) as moderating factor

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## Keywords

Hospitality Industry, Customer Satisfaction, Service Quality, Millennials, Technology Adoption Propensity (TAP)

## Abstract

*With the ever fast development of technology, the Millennials tend to fully utilizing the technology for everything, from booking, check-in hotels, paying bills, and comparing and looking up places to eat and shop. In order to remain competitive in the hospitality industry, hotels need to revisit their service quality as a whole. So far, limited studies have been done to look into how the millennials perceive service quality specifically in hotels. As the characteristic of millennials are heavily influenced by the current trend of use of technology, thus, it is noteworthy to examine their perception in service quality and service satisfaction provided by the hospitality industry. Hence, this paper aims to determine the relationship between service quality and customer satisfaction in hotel industry among the millennials. In addition, this paper also hopes to determine the role of technology adoption propensity as a moderator towards the relationship between service quality and customer satisfaction among millennials in the hospitality industry.*

## 1.0 Introduction

Malaysia is a country that is blessed with beautiful landscapes of untouched natural wonders like Cameron Highlands, Mount Kinabalu, Langkawi, Niah Cave, Tungku Abdul Rahman Marine Park etc, according to Malaysian Investment Development Authority [MIDA] (2018), Malaysia has “a breadth of beautiful landscapes, a depth of cultural experiences, and the world-renowned Malaysia Truly Asia slogan, it’s no wonder that the tourism industry in Malaysia has effectively stimulated the nation’s economy for the past decade”. MIDA (2018) stated that Malaysian tourism sector is one of the twelve National Key Economic Areas (NKEAs), thereby been identified as one of the key contributors to the Malaysian economy. Malaysia has proven itself as a prominent player when it is one of the top ten tourism destination (MIDA, 2018).

In the ever competitive and challenging business world today, especially in the hospitality industry, the trends and lifestyle of the millennials (those born between 1981 to 1996), (Pew Research Center, 2018) affected the way hospitality business is conducted. The millennials generation tends to have the high tendency of using technology for their day to day routine for example pay bills on line, check-in hotels online, looking for venues for dining, on-line shopping and many more, this is due to the fast pace of technological development and advancement which millennials have an attraction to fully utilize it (LinkedIn, 2017).

Parasuraman and Colby (2014), mentioned that there is tension caused between the positive aspect which is the increased value and the negative aspect which is having to learn and develop trust when adapting the new ways of conducting business, as service providers, employees and customers must face the technological revolution. Before the advancement and sophistication of technological application many companies and their managers have been busy with the conversion of the bricks-and mortar distribution system into electronic system with self-service interfaces. Parasuraman and Colby (2014) note that “going forward, as technology revolutionizes services, managers must cope with more complex challenges associated with delivering innovative service experiences, while ensuring that customers are receptive to those experiences, and potential adverse effects on employee are minimal”.

Hence, as generation change hotel business have to make the necessary changes to remain competitive in the stiff competition of the hospitality industry and its service quality. However, the insufficient research done to investigate how the millennials perceive service quality of the service industry (Md Salleh et al, 2010). As the characteristic of millennials are heavily influenced by the current trend of use of technology and IT savvy (Bannon, Ford & Meltzer, 2011). Therefore, their perception in service quality and service satisfaction provided by the hospitality industry are unknown.

According to Parasuraman and Colby (2014) they mentioned that *“Technology-triggered transformation in services is likely to accelerate in the future because current technologies are increasing rapidly in speed, capacity, connectivity, functionality, and ease of use, while potentially ground-breaking innovations are still nascent”*.

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Sabah is one of the state in Malaysia that is the second gateway into Malaysia catering both local and international visitors, Sabah Visitors by nationality 2015, 2016, 2017 & 2018, (STB, 2019) and Kota Kinabalu International Airport being the second busiest airport in Malaysia (Worldatlas, 2018), the statistical figures show a steady positive consistency of international and domestic visitors to Sabah, it is an definitely a hub and opportunity for the retail, wholesale, hotel & restaurant (Food & Beverage) industry to take advantage of this attraction thus improve revenue and in order to contribute to Malaysia’s GDP (Gross Domestic Product). Table 2.1 and Figure 2.1 shows the total domestic and International visitors for the year 2015, 2016, 2017 and 2018.

Table 2.1: Sabah Visitors Arrival for the year 2015, 2016, 2017 and 2018 (adapted from Sabah Tourism Board, 2019)

YEAR	MALAYSIAN	INTERNATIONAL	TOTAL
2015	2,197,800	978,426	3,176,226
2016	2,299,132	1,128,776	3,427,908
2017	2,449,556	1,235,178	3,684,734
2018	2,517,846	1,361,567	3,879,413



Figure 2.1: Sabah visitor arrival for the year 2015, 2016, 2017 and 2018 (adapted from Sabah Tourism, 2019)

In spite the uncertainty of the world's economy and the current exchange rate of Malaysian Ringgit which is traded at RM 4.0725 against the US Dollar (USD) (Bank Negara Malaysia, 2019). The state of Sabah tourism industry indicates a 7.9% increase from 2015 to 2016 and shows steady increase of 5.3% from the year 2017 to 2018 (refer to table 2.1 and figure 2.1).

Out of the travellers studied in 2018, the demographic profile of the international visitors in the fourth quarter of 2018, consists 57% were aged between 21 to 40 years old which falls under the category of millennials (STB, 2019).

## 2.0 Literature Review

According to authors such as Crick and Spencer (2011), Barrow, Powers and Reynolds, (2012), Wood (2013), has mentioned that the hospitality industry business cannot do without the essential structural components. Being polite and well-wishing meetings, greeting and appealing to guests by name, customers' need foresights and their correspondence, care of guests, polite behaviour with their customers, tolerance with respect to the guests, involving guests in various activities, and polite farewell are emphasized as the crucial elements.

Bagdan (2013), has mentioned that "the hospitality industry is the service industry" and it encompasses accommodation, catering sectors which includes travel agencies services as well. Barrows et al., (2012) and Bagdan (2013), and majority of authors have divided hospitality industry as number one the accommodation section and number two the food and beverage section.

According to Bagdan (2013), the vital role in the hospitality industry played by the customer, this is because the success of the business depends on satisfying the customers' needs. Caruntu, and Ditoiu, 2014 has mentioned that hospitality service providers must look for new ways to meet customers need and customers satisfaction to be fulfilled. In addition, Langviniene & Daunoravicute (2015) also highlighted the importance to ensure that customers' needs are met with high quality and high level of service in consistency as service is deemed intangible.

Langviniene & Daunoravicute (2015) and Litos, Politis, Grigoroudis, & Moustakis (2011) suggests that product innovation (i.e. service innovation, product innovation, administration innovation) is one of the influencing factors to consider which contribute to the success of hospitality business model.

## 2.1 Millennials

According to Techtarget Network [TN], (2018), they defined the millennials as generation Y, or the Net Generation and they are the demographic cohort that directly follows Generation X. The term Millennials is usually considered to apply to individuals who reached adulthood around the turn of the 21st century. The exact definition will vary from one source to another. According to TN (2018), they stated that "Howe and Strauss define the Millennial cohort as consisting of individuals born between 1982 and 2004".

According to English Oxford Living Dictionaries, millennial (noun) is defined as "people reaching young adulthood in the early 21st century (English Oxford Living Dictionaries [EOLD] on-line, 2018).

According to business dictionary online (2018), millennials are referred to as "the generation that follows Generation X, with birth years ranging from the early 1980s to the early 1990s. Many parents of this generation were Baby Boomers, thus making it the largest generation since the boomers. This generation is more likely to lean liberal in their political ideology, less likely to practice religion than previous generations, and grew up in the age of technology and therefore are very versed in technology. Also known as Generation Y".

Therefore, as there are no one definite definition for millennial and through the literature it varies from one author to another. Hence, in this study the millennials will refer to those born between 1980 to 2000.

## 2.2 Characteristic of Millennials

According to TN (2018) mentioned that "millennials grew up in an electronics-filled and increasingly online and socially-networked world. They are the generation that has received the most marketing attention. As the most ethnically diverse generation, Millennials tend to be tolerant of difference. Having been raised under the mantra follow your dreams and being told they were special;

they tend to be confident". While largely a positive trait, the Millennial generation's confidence has been argued to spill over into the realms of entitlement and narcissism (TN, 2018).

The millennial generation who are born between 1980 and 2000 (Affolder, 2017) are characterized by Strauss and Howe (1991) as being protected, by both their parents and society, and because they are driven to improve the world around them, by their virtue. This generation is "possessed of rational minds, a positive attitude, and selfless team virtue" (Strauss & Howe, 1991, p. 342) (Sarah Keeling, 2003).

Social and economic contexts that are unique from previous generations, where exposed to the millennials (Levenson, 2010), such as the expansion of the digital technology and the media (Lancaster and Stillman, 2002). Prior research characterizes them as being individualistic, technology savvy, mature, sophisticated, and well educated (Syrett and Lammiman, 2003) (Calvo-Porrall, Pesqueira-Sanchez & Medín, 2018).

According to Affolder (2017), mentioned that "among many millennials, the demand for greater transparency has coupled with a high level of comfort in the speed and potential to demand change in the digital world". This will indeed, grow as society reorganizes and media technology eventually replaces the face-to-face communication (Affolder, 2017).

Besides higher rates of materialism and narcissism, millennials have high self-esteem, unrealistic expectation and impatient. (Twenge, 2010); they are group oriented, but with a strong sense of identity (Gupta, Brantley, & Jackson, 2010). Similarly, previous studies describe them as being highly responsible, independent, and consumption oriented (Thompson and Gregory, 2012). In terms of their consumption behaviour, previous studies found that the millennial generation has a strong desire of products and services that match their lifestyle and personality, which serves them as a form of self-expression (Gupta et al, 2010; Calvo-Porrall, et al, 2018).

### 2.3 Millennials and Technology

According to Rosdi (2017) stated that "technology has changed the business rule by providing information on all services available virtually all over the world, which means that the potential client can be from any resident of the world. Technology also expands marketing opportunities". Example of these technologies are telephone and walkie-talkie, wireless communication systems that enable voices, text, and data communication among employees, managers, departments, and guests are now being adapted by hotels and restaurants (Rosdi, 2017).

According to Astroza, Garikapati, Bhat, Pendyala, Lavieri and Dias, 2017 note that "smartphones, GPS navigation devices, Bluetooth devices, tablets, phablets and other mobile wireless devices are being used by people of all walks of life around the world". In Astroza et al (2017) reported that statistics suggest that more than 90% of all adults in the United States have a cellular telephone, with 70% of these individuals owning smartphones (Poushter, 2016; Astroza et al, 2017).

According to Astroza, Garikapati, Bhat, Pendyala, Lavieri and Dias, (2017), even in emerging economies of the world, such as Chile, China, Lebanon, and Malaysia, the smartphone ownership rate is at more than 50% of the adult population. It also noteworthy that most children, even as young as 4 years old, own and regularly use smartphones (Kabali, Irigoyen, Nunez-Davis, Budacki, Mohanty, Leister and Jr Bonner, 2015)

The millennials behaviour is influenced using technology readily available to them and that they are born into a world full of digital technology (Calvo-Porrall et al, 2017). Therefore, they have great technological expertise and a great ability to easily access vast amounts of information (Wolburg and Pokrywcznski, 2001; Calvo-Porrall, et al, 2018).

The existence of the internet has a dramatic effect on the way how we communicate. It has broken down barriers, which traditionally prevented billions of citizens from collaborating and participating in public life. This mega-trend means that previously disempowered members of society can connect with others and effectively push for change (Affolder, 2017).

An estimated 3.5 billion people now have access to the internet. By 2020, 9.2 billion people will have mobile devices. According to Ericsson (2014) reported that "Smart phones, of which there are currently 2.6 billion subscriptions globally, are predicted to rise to 6.1 billion by 2020" (Affolder, 2017; Ericsson, 2014).

The vast variety of media such as using the social blogs and social platforms attracts the millennials generation (Hershatler and Epstein, 2010), and depend more on their peers' opinions when making

purchase decisions (Valentine and Powers, 2013). Likewise, millennials spend much of their time in virtual spaces, where they do not only enjoy relationships in the social network, but also share their knowledge and communicate and interact with each other (Prensky, 2001; Calvo-Porrall, et al, 2018).

According to TN (2018) note that “millennials grew up with computers, the Internet and the graphical user interface (GUI). This familiarity makes them adept at understanding interfaces and visual languages. They tend to adjust readily to new programs, operating systems (OS) and devices and to perform computer-based tasks more quickly than older generations”. Millennials might be the generation that can execute multitasking skills due to the current use of technology and availability of it (TN, 2018).

According to United Nation A-UK (2018) as noted by Janish, “as the first generation of digital natives, millennials are empowered by technology. Social media is the number one activity on the web, and, for young people, it is the top source of news, the biggest influence on voting behaviour and the reason that millennials are more likely to give to global, as opposed to local, causes.”

UNA-UK (2018) added that the ALS Ice Bucket Challenge is a great example of technological empowerment. Campaigners were recorded pouring icy water over themselves before posting the video on social media and nominating someone else for the challenge. The campaign went viral, raised over \$100 million and engaged leaders from all sectors and regions, from Bill Gates to Lei Jun.

#### 2.4 Service Quality

Many studies clearly support the theory that service quality, as perceived by consumers, is derived from a comparison of their expectations of the service they will receive with their perceptions of the service they did receive (Cadotte and Turgeon, 1988; Martin, 1986; McCleaty and Weaver, 1982; Parasuraman et al., 1986). Service quality, then, is the direction and degree of difference between expectations and perceptions; that is, the better perceptions are than expectations, the higher the level of perceived service quality; the worse perceptions are than expectations, the lower the level of perceived service quality (Knutson, Stevens, Wullaert and Patton, 1990).

According to Mei, Dean and White, (1999), in the hospitality industry, other attributes such as imprecise standards and fluctuating demand have been identified. Service quality has been linked to the success of hospitality businesses (Kotler, 2002) (Gamor, Amissah, Adutwum, and Boakye, 2014).

Services are intangible (Bateson 1977, Berry 1980, Lovelock 1981, Shostak 1977) because they are performances rather than objects, precise manufacturing specifications concerning uniform quality can rarely be set (Parasuraman, Valarie A. Zeithaml, & Leonard L. Berry, 1985). Parasuraman et al, later refined their proposed to five dimensions: tangibles, reliability, responsiveness, assurance and empathy.

The development of the measurement of service quality is referred to as “SERVQUAL”. There were scholars that have modified, adapted, or completely revised the models proposed by Parasuraman et al. (1985) based on service attributes, delivery, performance and sector, improving the gaps and limitations of the original models (Seth, Deshmukh and Vrat, 2005). Cronin and Taylor (1992) developed a performance only measurement model of service quality called “SERVPERF” by illustrating that service quality is a form of consumer attitude, and the performance only measure of service quality is a better means of measuring service quality (Wattanakamolchai, Singal & Murrmann, 2013). Nevertheless, SERVQUAL remains the most commonly used models for service quality in the service industry today.

SERVQUAL have been widely utilized both in the academic and the industry by the practicing managers throughout the world with multiple studies which questioned conceptual and operational from which the formation of the base of the model (Wong, Dean and White, 1999; Babakus and Boller, 1992; Carman, 1990; Teas, 1994). When evaluating customer’s experience in the hospitality industry service quality is an important component in its evaluation (Knutson, Beck, Kim and Cha, 2010).

#### 2.5 Customer Satisfaction

Based on past research some have found that according to industry experts for hospitality players to be focusing on the future growth, are the ones that who put customer experience first, meeting the demanding customer service and quality expectation (Keith and Simmers, 2013; Litchford, 2007). According to Choi and Chu, 2001, hotels that can retain, maintain, satisfy and attract customers are inclined to survive. The chance of customers to return to the hotel depends on the level of customer’s satisfaction which is influenced by the customer’s perception on how they value such services (Keith and

Simmers, 2013; Choi and Chu, 2001; Sim, Mak and Jonas, 2006). Customer satisfaction is the essential key to have the competitive advantage in the market which contributes to business growth (Kuo, Cheng, Cheng and Lin, 2015; Finn, 2012). With the growth of the service industry, the customer satisfaction is valued (O'Neil and Palmer, 2003).

According to Barnes, Beauchamp and Webster, 2010, that there has been a numerous literature that put emphasis of the importance of meeting customers expectation to ascertain customer satisfaction in any service-oriented setting (Parasuraman, Zeithaml and Berry, 1985). Barnes et al, 2010 noted that "firm must go beyond merely satisfying customers if customer loyalty is to be achieved".

In view of customer satisfaction, it has many past authors has agreed that it will greatly contribute to the positive increase of return on investment, increase in market share and also contribute to the profitability of a firm (Hackl and Westlund, 2000; Barsky and Labagh, 1992; LeBlanc, 1992; Stevens, Knutson and Patton, 1995; Legohere, 1998; Fornell, 1992; Halstead and Page, 1992). Nadiri and Hussain, 2005 noted that for hotels to remain competitive they must meet and exceed their customer's expectations. This is to ensure that hotel's products and services are noticeable among competitors (Nadiri and Hussain, 2005).

### 2.6 Technology Adoption Propensity (TAP)

It was noted by Parasuraman (2000) that customer's increased in the level of difficulty in comprehending and coping with the sophistication of technology products and services are indeed both going in line together in terms of its innovation. Marciel, Ferreira and Rocha, (2013) noted that from the perspective of business viewpoint and research on customer behaviour, it is relevant to understand the factors that leads to consumers action to adopt new technologies.

Some studies have investigated the assessing the attributes like ease of use, reliability, speed of delivery, security and control with regards to the quality id e-service and self-service technologies (Dabholkar 1996; Elliott, Meng, and Hall 2012; Zeithaml, Parasuraman, and Malhotra 2002). In the context of technology enabled service (TES), in general researchers agreed that cognitive evaluation of service quality pave way to emotional response (Wang, Kam and Sparks, 2016).

TAP is to gauge or measure how consumer's propensities to adopt new technology by utilizing the multiple-item scale (Ratchford and Barnhart, 2012). From the development of the measurements by the authors and researchers the TAP show that a consumer's tendency to use new technologies, which can be measured by the 14-item index that combines assessments of consumers' positive and negative attitudes towards technology (Ratchford and Barnhart, 2012).

The adoption process is considered as "*the process through which an individual passes from gaining initial knowledge of an innovation, to forming an attitude toward the innovation, to making a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision*" (Cavusgil, 2007), in order to increase the effectiveness of sales processes firms should take into account the technology adoption processes (Garcia and Payan, 2016).

### 3.0 Expected Outcome

Based on the above literature review the following conceptual framework is proposed (refer to figure 1.1 conceptual framework) for the relationship of service quality and customer satisfaction with technology adoption propensity (TAP) as a moderating factor.

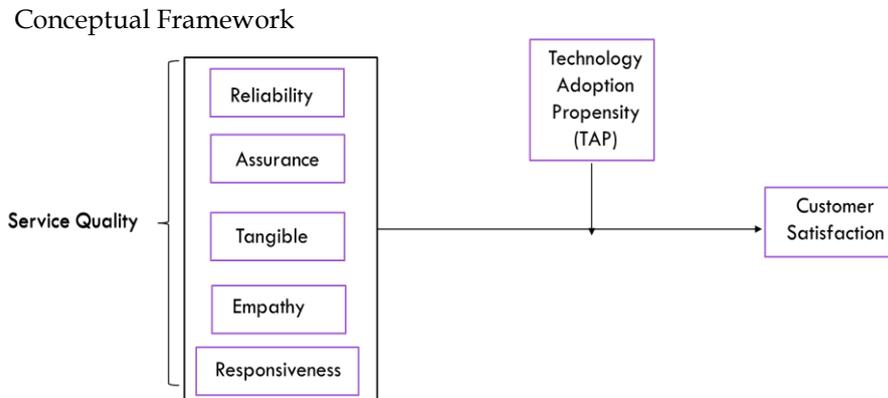


Figure 1.1 Conceptual Framework

The figure 1.1 shows the conceptual framework of the proposed study whereby it is adapted from the service quality model by Parasuraman, Zeithaml & Berry, (1988) defined service quality as “*the ability of the organization to meet or exceed customer expectations*”. The independent variable is the service quality which has five dimensions; reliability, assurance, tangible, empathy and responsiveness. The dependant variable is the customer satisfaction. Whereby the moderating factor is the technology adoption propensity (TAP).

From the derived framework hypothesized that there is a positive relationship between service quality and customer satisfaction and technology adoption propensity strengthen positive relationship between service quality and customer satisfaction.

#### 4.0 Conclusion & Discussion

The influence of millennials are significantly important as they are the generation that dictates the trend of business, “*They have grown up with technology, and are technology so much that half of them would rather give up their sense of smell than a critical device.*” (Gibson and Sodeman, 2014). They are the next generation that will be equipped with tools and move forward for the betterment of the future in terms of economy, geopolitical and environmental crisis (Hershatter and Epstein, 2010).

To gauge the technology adoption propensity (TAP) is important in order for hospitality practitioner and managers to know the changes in trend of the market especially millennials that are travel through Sabah and millennials consist of 57% of the travellers from January to December 2018 adapted from Sabah Tourism Board [STB] (2018). Hence, the emphasis of TAP is through the framework proposed. This may provide hospitality managers with information to consider adopting technology meeting the customers needs and expectation so to remain competitive and relevant in the market.

Therefore, a future study must be done to determine the framework and the influence of TAP proposed this paper and it must be imperially tested using quantitative method and use of PLS-SEM (Hopkins, Georgia and College, 2008; Wong, 2013).

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