

Age in the Acceptance of Mobile Social Media: A Comparison of Generation Y and Baby Boomers Using UTAUT2 Model

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ABSTRACT

This paper focuses on determining the age-based differences among consumers in terms of the acceptance of mobile social media. In doing so, the younger age group is represented by Generation Y and the elderly by Baby Boomers. Further, the famous UTAUT2 model is applied, and relationships mentioned in it are evaluated for the two age groups. For this purpose, a sample of 249 respondents was obtained from the online survey conducted in the state of Punjab in India. The statistical technique of multi-group path analysis using structural equation modelling (SEM) is applied to the generated data. The findings of the study reveal that the young age and elderly groups differ significantly in terms of the impact of effort expectancy, facilitating conditions, hedonic motivation on behavioral intention, and facilitating conditions on use behavior. It may provide important implications for future research related to internet marketing and mobile social media.

KEYWORDS

Age, Baby Boomers, Generation Y, Internet Marketing, Mobile Social Media, Multi-Group Path Analysis, Social Media Acceptance, Social Media Adoption, UTAUT2

INTRODUCTION

In the digital world, the arrival of smartphones has expanded the scope of social media to mobile social media. Mobile devices and social media together present a lot of opportunities for mobile business and online marketing (Pelet & Papadopoulou, 2015). Nowadays, social media is predominantly accessed from a mobile phone (Mehra et al., 2020) rather than desktops or computers. It may be due to some additional advantages gained through increased personalization (Cloarec, 2020) and the ability to communicate during transit (Yang et al., 2021) specifically offered by mobile social media. It is considered the channel by which different social media applications could be accessed through smartphones or handheld devices for the sole purpose of the interaction, exchange, and development of user-generated content (Ju et al., 2021). Mobile social media is a software-based service that could be accessed through a mobile phone or any other handheld device for sharing news or some other

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relevant information (Humphreys, 2013) via an app or a mobile browser. It has also emerged as a vital source to generate customer value (Ju et al., 2021) and is considered an important medium for information retrieval, interaction, and fun (Zhao, 2021). Mobile phones have emerged as an integral part of the social life of individuals (Chua et al., 2018). Consequently, several mobile social media applications have emerged with time and have become an important part of the day to day life. These applications such as Facebook, YouTube, LinkedIn, Instagram, Whatsapp, etc. have changed the way people communicate and spend their time. There may be different motivations among individuals to use these applications.

Variable age is considered an important factor affecting the online behavior of an individual (Rialti et al., 2019; Sheldon et al., 2021). Marketing studies highlight the importance of age in technology acceptance and reveal that younger generations mostly have a positive attitude toward the adoption of new technology (Nash, 2019; Vasudeva & Chawla, 2019) and this may also be true in the case of mobile social media. There is a digital divide in technology usage among the generations in terms of age (Berezan et al., 2018; Friemel, 2016). It is observed that the younger generations i.e. generation X and generation Y have sought greater research attention in terms of their preference and use of technology than the elderly generation baby boomers (Heaney, 2007; Muslim et al., 2019; Nash, 2019). So, it becomes imperative to conduct some research on the technology adoption of the elderly vis-à-vis the young consumers.

It is observed that the majority of studies in the field of social media are focused on the young generation. But there has been lesser concern about how social media is utilized among the elderly cohort (Sheldon et al., 2021) and this may also apply to its latest channel i.e. mobile social media. There is a dearth of research focused on examining the differences between the young and elderly generations in terms of mobile social media acceptance. In past, comparatively lesser research is available on how the elderly group differs from the younger cohort in terms of their acceptance of mobile social media. So, the goal of this study is to make some meaningful contributions to the field of mobile social media and provide insights into the issue of its adoption among young and elderly people. In doing so, the young age group is represented by generation Y (Gen Y) and old age by baby boomers (BB). The study addresses this issue by making use of the determinants of technology acceptance available in the UTAUT2 model proposed by Venkatesh et al. (2012). This model has great relevance for social media-based research (Shoheib & Abu-Shanab, 2022). Further, the multi-group path analysis using structural equation modeling is utilized to understand the differences between two groups of generations. Based on the previous discussion, this study addresses the research question that whether the young age and old age consumers represented by two generations differ significantly from each other in terms of acceptance of mobile social media based on the UTAUT2 determinants. The study also helps to determine whether the UTAUT2 model is a proper fit to test the relationships in the case of mobile social media. Next, the relevant review of literature, methodology, analysis, and findings depicting the flow of research are presented in the subsequent sections.

LITERATURE REVIEW

There may be a difference in online behavior among the younger and old age groups (Confente & Vigolo, 2018). Previous studies suggest an inverse relationship between age and social media usage (Henderson, 2020; Hruska & Maresova, 2020). Young age people possess more appropriate social media behavior and accept social applications more quickly than the elderly (Leist, 2013; Puriwat & Tripopsakul, 2021). Whereas, elderly people may find it more difficult to adopt new internet-based applications than younger ones (Obal & Kunz, 2013; Thanasrivanitchai et al., 2017) and young age consumers have more social orientation than the elderly (Yuksel et al., 2016). Previous research reveals that in comparison to a young age group the usage of social media is lower among the old (Meiler-Rodríguez et al., 2012; Quinn, 2018; Waycott et al., 2016). The reason may be the lack of digital skills among the older cohort for using social media applications (Chang et al., 2019; Chen &

Hewitt, 2011; Lee et al., 2014). However, some studies have also revealed that mobile social media can help elderly people to connect easily with their family and friends (Khoo & Yang, 2020) and satisfy their social needs (Nam, 2021). Zhu (2021) has mentioned that though elderly people use social media in lesser numbers they are equally affected by it which is in similarity to the younger population. So, this contrast among different views on social media usage based on age demands some research attention.

In this study, the younger and the elderly cohort of consumers are represented by the following two groups of generations.

GENERATION Y

These are the individuals who were born between the years 1981 and 2000 (Beekman, 2011; Berraies et al., 2017; Cekada, 2012) and are most commonly known as the millennial generation (Balda & Mora, 2011) or digital natives (Prensky, 2001). They are part of the generation that has grown up in the digital environment (Wesner & Miller, 2008). They are usually the children of baby boomers and were born in a technology-driven wireless society with lower global boundaries (Williams & Page, 2011). Generation Y has a greater need for connecting and socializing with others and is keen to join social networks (Donnelly, 2008). They are flexible and highly motivated toward their goal of success (Williams & Page, 2011). Generation Y individuals are technology-friendly, goal-oriented, and self-centered, and seek freedom and enjoyment in work that deems to benefit them (Balda & Mora, 2011; Bannon et al., 2011). Their social media behavior could be highly influenced by a mobile phone (Nasution et al., 2021). Facebook and other social media applications are a great attraction to generation Y (A'lamElhuda & Dimetry, 2014). It is believed to be the generation that is more regular users of social media (Bolton et al., 2013) and has more social media influence (Zhu, 2021). This generation can employ technology in different aspects of their life and also has a greater preference for social media communication than the baby boomers and generation X (Dickey & Lewis, 2010; Zhu, 2021).

BABY BOOMERS

These are the people who were born between the years 1946 and 1964 (Beekman, 2011; Kumar & Lim, 2008). They admire positivity and a sense of self-expression and individualism (Hawkins et al., 2010). Some of them may still be working and might be in some senior positions in their professional career but others may have retired or may have started a new work life after retirement (Williams & Page, 2011). They have more time and higher disposable income (Musico, 2008). Boomers value family responsibilities (Dietz, 2003) and are generally more concerned with energy and health (Court et al., 2007). They may not be as familiar with social media as is the case with other generations (Vadwa et al., 2016; Zhu, 2021). However, there has been a growing trend of smartphone usage among baby boomers (Emarketer, 2016). Boomers are generally more interested in sharing their pictures and information on social networks (Khoo & Yang, 2020). In addition, they also have a greater concern for the privacy of the information they share on the internet (Litt, 2013). The continuous advancement in mobile technology has encouraged the elderly to learn the usage of social media applications such as Facebook, YouTube, WhatsApp, and others (Nam, 2021; Teng & Joo, 2017).

RESEARCH MODEL

In past, various models were contributed by information systems researchers to address the issue of technology adoption. Some of these prominent models include the theory of reasoned action (TRA) proposed by Fishbein and Ajzen (1977), the technology acceptance model (TAM) given by Davis

(1985), TAM2 recommended by Venkatesh and Davis (2000), TAM3 suggested by Venkatesh and Bala (2008), unified theory of acceptance and use of technology (UTAUT) given by Venkatesh et al. (2003), UTAUT2 by Venkatesh et al. (2012), and UTAUT3 by Farooq et al. (2017). Out of the different available models, UTAUT2 is utilized in the current study to understand the differences in acceptance of mobile social media. Though UTAUT3 is the latest improvement there is a dearth of studies utilizing UTAUT3 for social media research. Instead, UTAUT2 has been found more suitable for studies involving social media acceptance (Gharaibeh et al., 2020; Mishra et al., 2022; Shoheib & Abu-Shanab, 2022). It is also in line with the study conducted by Tuten (2020) that reveals that UTAUT2 explains the majority of the variation in the behavioral intention to use social media applications. Venkatesh et al. (2012) have highlighted that this model provides an advantage in understanding the acceptance of technology from the consumers' context and is considered an improvement over its predecessors. They have mentioned that the model can explain the majority of variation in behavioral intention in comparison to TAM. Gharaibeh et al. (2020) in their study have also applied this model to ascertain the acceptance of social media among consumers and supported the suitability of this model in social media research. It is the reason for the selection of this model in the current study.

Venkatesh et al. (2012) proposed the UTAUT2 model with three more determinants of behavioral intention i.e. hedonic motivation, price value, and habit in addition to the existing four determinants in UTAUT i.e. performance expectancy, effort expectancy, social influence, and facilitating conditions. They have proposed that the behavior intention use technology determines the actual use behavior. In addition, the performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivations, price value, and habit affect the behavioral intention to use the technology which further influences the use behavior. However, among these, the two constructs i.e. facilitating conditions and habit also directly influence the use behavior in addition to its indirect effect through behavioral intention.

As per the nature of the current research, the moderating variables of gender, age, and experience mentioned in the original study were ignored. But all other determinants of behavioral intention and use of technology are utilized here to make it a multi-group comparison between the two generations. The constructs utilized from the UTAUT2 model (Venkatesh et al., 2012) are as follows:

1. **Performance expectancy (PE):** It is defined as the extent to which an individual believes that the use of technology will be beneficial for him/her in accomplishing certain tasks.
2. **Effort expectancy (EE):** It refers to the level at which the technology is easy to use by the consumer.
3. **Social Influence (SI):** It is concerned with the degree to which others such as family members or friends of the consumer will think that he/she should use a specific technology.
4. **Facilitating Conditions (FC):** It refers to the extent to which the resources are available to a consumer for using the technology in a specific manner.
5. **Hedonic Motivation (HM):** It is defined as the entertainment, fun, or pleasure that a consumer feels with the use of technology.
6. **Price Value (PV):** It is considered as the balance between the benefit that a consumer seems to get from the use of technology and the financial cost forgone for the same.
7. **Habit (HA):** It refers to behavior that a consumer performs automatically and continually due to experiential learning.
8. **Behavioral Intention (BI):** It is defined as the level up to which a consumer thinks of performing or not performing a certain kind of behavior.

HYPOTHESES

A brief description of the UTAUT2 constructs and their relationship with behavioral intention and use behavior is discussed further.

Performance Expectancy and Behavioral Intention

Performance expectancy directly affects the intention to use mobile apps (Wu, 2015). The available literature reveals that performance expectancy could be considered a key factor for the adoption of social media (Lim et al., 2019) or mobile social media (Wong et al., 2015). Previous research suggests that the effect of performance expectancy on behavioral intention could be higher in the case of the younger age group than in the elderly (Cimperman et al., 2016; Venkatesh et al., 2012) and the strength of this relationship reduces with higher age (Isa & Wong, 2015). It has been found that performance expectancy significantly affects the behavioral intention to use social media (Abdat, 2020). This discussion leads to the formation of the following hypotheses in the context of mobile social media for the two generations:

- H_{1a}**: Performance expectancy has a significant effect on the behavioral intention to use mobile social media for generation Y.
- H_{1b}**: Performance expectancy has a significant effect on the behavioral intention to use mobile social media for baby boomers.

Effort Expectancy and Behavioral Intention

Literature suggests that the effect of effort expectancy on behavioral intention is lower among old-age people in comparison to younger ones (Chang et al., 2019). It reveals that old people find technology a complex thing whereas young people find it relatively easy to use. It has been found that effort expectancy significantly affects the intention to use mobile commerce services (Gharaibeh et al., 2018) and has a positive impact on mobile app involvement (Wu, 2015). The convenience provided by social media technology also increases the importance of the effect of effort expectancy on behavioral intention (Salloum et al., 2018b). Isa and Wong (2015) found that the effect of effort expectancy on behavioral intention reduces in case of the elderly people. However, Abdat (2020) in a study on social media adoption among Indonesian SMEs has found that the effect of effort expectancy on behavioral intention is insignificant. So, these arguments have led to the formation of the following hypotheses for the two generations:

- H_{2a}**: Effort expectancy will have a significant effect on the behavioral intention to use mobile social media for generation Y.
- H_{2b}**: Effort expectancy will have a significant effect on the behavioral intention to use mobile social media for baby boomers.

Social Influence and Behavioral Intention

Social influence is considered an important factor that affects the behavioral intention toward acceptance of technology (Ramadani et al., 2014) and mobile apps (Wu, 2015). Pentina et al. (2012) have mentioned that social influence drives the intention to adopt social network applications. Literature suggests that social influence has a significant effect on the behavioral intention to use social media (Abdat, 2020; Salloum et al., 2018a). Ramadani et al. (2014) have revealed that social influence has a considerable effect on the behavioral intention to use social media. Previous studies suggest that majority of social media apps are used by the younger generation (Beneke et al., 2016; Rezaei, 2018). Kucukemiroglu and Kara (2015) have proposed that social influence considerably affects the behavioral intention to use social media apps in comparison to other mobile apps. Listyo and Ligand (2014) have also found that social influence considerably affects the intention to use social media. This leads to the formation of the following hypotheses for the two generations:

H_{3a} : Social influence has a significant effect on the behavioral intention to use mobile social media for generation Y.

H_{3b} : Social influence has a significant effect on the behavioral intention to use mobile social media for baby boomers.

Facilitating Conditions and Behavioral Intention

Previous research reveals a significant impact of facilitating conditions on the behavioral intention to use new technology (Venkatesh et al., 2012). It has been proposed that age considerably affects the relationship between facilitating conditions and behavioral intention, and this effect is higher for the younger generation than for the elderly (Isa & Wong, 2015). Abdat (2020) has found that there is a significant effect of the facilitating conditions on the behavioral intention to use social media. Wong et al. (2015) have mentioned that facilitating conditions act as an important factor in the use of technology among the younger generation. In the case of social media, it is revealed that facilitating conditions significantly affect the behavioral intention of the younger generation including students (Salloum et al., 2018b; Suksa-ngiam & Chaiyasoonthorn, 2015). This discussion has led to the formation of the following hypotheses for the two generations:

H_{4a} : Facilitating conditions have a significant effect on the behavioral intention to use mobile social media for generation Y.

H_{4b} : Facilitating conditions have a significant effect on the behavioral intention to use mobile social media for baby boomers.

Hedonic Motivation and Behavioral Intention

Hedonic motivation leads to entertainment and fun and could be considered the reason behind the behavioral intention of individuals to use mobile-based applications (Sitar-Taut, 2021). It drives the intention to use mobile commerce thereby increasing the chances of acceptance of social media applications such as Facebook, YouTube, and Twitter among consumers (Gharaibeh et al., 2020). Previous studies also present some contradicting views regarding the impact of hedonic motivation on behavioral intention. Some of them have shown a positive impact on behavioral intention (Çera et al., 2020; García Botero et al., 2018; Salloum et al., 2019) whereas others have opposed this view (Mehta et al., 2019; Venkatesh et al., 2003). It has been revealed that young people have a greater tendency towards hedonic motivation and perceive higher enjoyment in applications available on mobile phones such as videos, music, and mobile games (Chang et al., 2019), and mobile social media could also be considered one of them. This leads to the formation of the following hypotheses for the two generations:

H_{5a} : Hedonic motivation has a significant effect on the behavioral intention to use mobile social media for generation Y.

H_{5b} : Hedonic motivation has a significant effect on the behavioral intention to use mobile social media for baby boomers.

Price Value and Behavioral Intention

Price value effectively determines the intention to use new technology (Palau-Saumell et al., 2019). Gharaibeh et al. (2020) have found that price value does not affect the intention to use mobile commerce applications which is equally applicable to social media. Venkatesh et al. (2012) in their study have mentioned that age significantly affects the relationship between price value and behavioral intention. In the literature, there are also some contradictory views about the relationship between price value and behavioral intention. Tuten (2020) has revealed that price value is an important predictor of social

media whereas Akgül et al. (2019) in their study have found an insignificant effect of price value on behavioral intention. This leads to the formation of the following hypotheses for the two generations:

H_{6a}: Price value has a significant effect on the behavioral intention to use mobile social media for generation Y.

H_{6b}: Price value has a significant effect on the behavioral intention to use mobile social media for baby boomers.

Habit and Behavioral Intention

Habit considerably affects the behavioral intention to use mobile commerce applications which is also applicable to social media (Gharaibeh et al., 2020). It is considered one of the important factors affecting the usage of social media applications (Akgül et al., 2019) and is also found to be one of the main predictors of social media use (Hazzam & Lahrech, 2018). In past, different studies have proposed that habit considerably affects the intention toward technology usage (Gharrah et al., 2019; Nikolopoulou et al., 2020; Venkatesh et al., 2012). Al-Zedjali et al. (2014) have found that habit significantly influences the behavioral intention to use social media services such as Facebook. This discussion has led to the formation of the following hypotheses for the two generations:

H_{7a}: Habit has a significant effect on the behavioral intention to use mobile social media for generation Y.

H_{7b}: Habit significantly has a significant effect on the behavioral intention to use mobile social media for baby boomers.

Facilitating Conditions and Use Behavior

Facilitating conditions have a crucial role in information technology-based systems (Suksa-ngiam & Chaiyasoonthorn, 2015). Previous studies reveal that they have a significant effect on user behavior toward the adoption of new technology (Venkatesh, et al., 2012; Venkatesh et al., 2003). Puriwat and Tripopsakul (2021) in their study on social media adoption for business purposes in Thailand also found that facilitating conditions affect user behavior in the case of a social media application such as Facebook. In addition, it was found that age has a considerable role to play in the user behavior of social media for business purposes and younger people were having a higher tendency toward acceptance of new technology. These findings were aligned with the study conducted by Escobar-Rodríguez and Carvajal-Trujillo (2014). So, this leads to the formation of the following hypotheses for the two generations:

H_{8a}: Facilitating conditions have a significant effect on the use behavior towards mobile social media for generation Y.

H_{8b}: Facilitating conditions have a significant effect on the use behavior towards mobile social media for baby boomers.

Habit and Use Behavior

Literature suggests that social media usage is influenced by habit (Khang et al., 2014). Limayem et al. (2007) found that continuity in the usage of information technology leads to the formation of habit in the form of automatic behavior. Habit is also considered an important determinant of the use of technology (Escobar-Rodríguez & Carvajal-Trujillo, 2014). A previous study reveals that this relationship is also true in the case of social media applications (Hsiao et al., 2015) and the habit has a positive impact on use behavior (Hossain, 2019). Further, Sheikh et al. (2017) also argued that habit has a positive association with user behavior in social media-based settings. This discussion leads to the formation of the following hypotheses for the two generations:

H_{9a} : Habit has a significant effect on the use behavior towards mobile social media for generation Y.
 H_{9b} : Habit has a significant effect on the use behavior towards mobile social media for baby boomers.

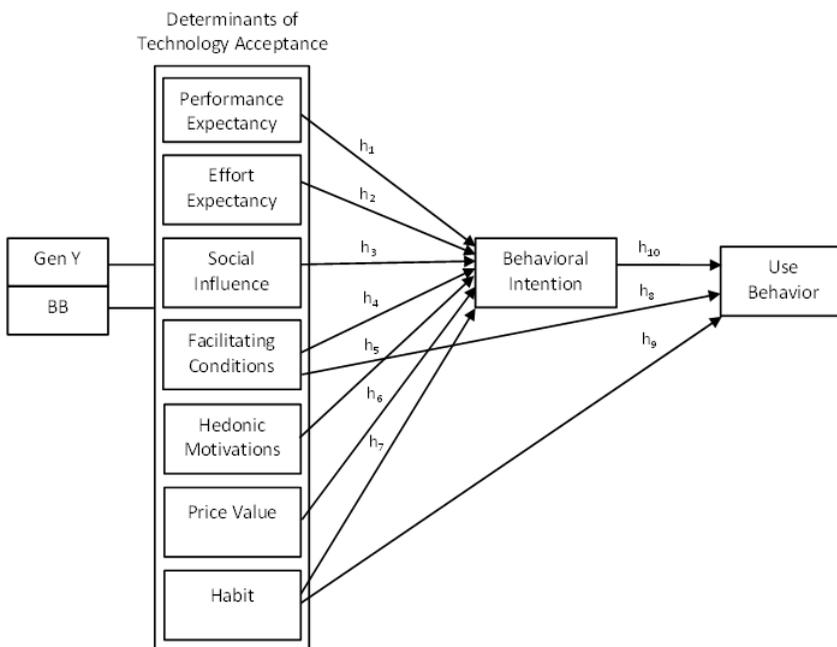
Behavioral Intention and Use Behavior

Han et al. (2021) have proposed that there is a significant mediation effect of behavioral intention on use behavior. It has been revealed that behavioral intention to use social media considerably affects the actual use behavior (Huang, 2018) which matches with the findings of Venkatesh et al. (2003) and Venkatesh et al. (2012). Salloum et al. (2018a) also supported this view and proposed that user behavior is significantly influenced by the behavioral intention to use social networking applications. Berry (2017) in a study also proposed a considerable relationship between behavioral intention and the use behavior of elderly people. Puriwat and Tripopsakul (2021) in a study conducted in Thailand found that younger adults have more tendencies to use social media than the elderly and there is a higher impact of their behavioral intention on the use behavior. This leads to the formation of the following hypotheses for the two generations:

H_{10a} : Behavioral intention has a significant effect on the use behavior towards mobile social media for generation Y.
 H_{10b} : Behavioral Intention has a significant effect on the use behavior towards mobile social media for baby boomers.

The research model based on UTAUT2 and adjusted as per the nature of the current study is shown in Figure 1. It also depicts the different relationships to be tested in the form of the above-mentioned hypotheses.

Figure 1. Research model based on UTAUT2 (source: Venkatesh et al., 2012)



RESEARCH METHODOLOGY

This study is primarily survey-based research in which the data was collected through online mode from the respondents belonging to the state of Punjab in India. The data collection spanned four months and was done during the time of the Covid19 pandemic during which the respondents were difficult to reach physically due to their health and safety concerns. In this situation, the technique of virtual snowball sampling was utilized to collect the relevant data related to the current study. This technique was selected based on the utility of virtual snowball in conducting social media research. It is in line with the study conducted by Baltar and Brunet (2012). Their findings revealed that the response rate in a virtual snowball sampling was higher than the traditional snowball technique in the case of social research using Facebook. Even Leighton et al. (2021) in their research study also adopted the snowball sampling technique using social media due to the limitations of the Covid19 pandemic. Dusek et al. (2015) have proposed that both social media and snowball sampling could be effectively utilized in combination to target a population that is difficult to approach. Moreover, the online mode of data collection has been used extensively in marketing studies in the past (Arnett et al., 2018; McBride et al., 2020) and also in research related to technology acceptance (Salloum et al., 2019) and social media (Puriwat & Tripopsakul, 2021). So, in the current study, an online questionnaire based on a Google survey was prepared and the link was posted on a Facebook Page. Further, an invitation to fill out the questionnaire was sent to the contacts of the author through Facebook Messenger and WhatsApp. These are the top two popular platforms in India through which the online questionnaire could be shared among the contacts who were accessing the mobile social media applications. While sharing the survey instrument, each of the respondents was requested to share the link of the online questionnaire further with the contacts through Facebook Messenger and WhatsApp within their age group to create a chain of connections. In this way, a total of 697 respondents were managed to be contacted. From these, 364 (52.22%) responses were obtained. There were no missing values in the sample as the data was collected through an online questionnaire where it was mandatory to fill in the required columns before submission of the response. Out of all, only the responses received from the generation Y and baby boomers belonging to the state of Punjab were utilized further for the current study which were 145 (N_{GenY}) and 104 (N_{BB}) respectively. Thus, the effective sample size came out to be 249 for the two groups. A similar sample size was utilized in some studies related to social media adoption (Abdat, 2020; Puriwat & Tripopsakul, 2021; Tuten, 2020) and is thus considered to be adequate. Further, the demographics generated from the survey for each generation are presented in Table 1.

In the survey instrument, the respondents were examined about their usage of the top five social media applications in India i.e. WhatsApp, YouTube, Facebook, Instagram, and Twitter. These five applications were selected based on their popularity as per the social media user statistics revealed by the Government of India in February 2021 (Chakravarti, 2021). In the questionnaire, first, the respondents were asked about the type of social media applications that they use on their mobile phones. Further, they examined their views regarding various statements related to the acceptance of mobile social media based on the constructs mentioned in the UTAUT2 model using a seven-point Likert scale. These statements related to the different constructs are presented in Table 2. Furthermore, the respondents were also inquired about their frequency of usage of the above-mentioned social media applications depicting their actual use. It is based on the constructs mentioned in the UTAUT2 model using a six-point frequency scale with values ranging from very frequent usage to the non-usage of the application.

DATA ANALYSIS

The user statistics of mobile social media applications generated from the online survey are shown in Table 3. The data generated revealed that WhatsApp (139) was the most popular application among

Table 1. Demographic profile of the respondents

Generation Y			
Gender	No. of respondents	Income (Indian Rupee)	No. of respondents
Male	63	Up to 2,00,000/-	46
Female	82	2,00,001 to 5,00,000/-	48
		5,00,001 to 10,00,000/-	28
		10,00,001 and above	23
Total	145	Total	145
Baby Boomers			
Gender	No. of respondents	Income (Indian Rupee)	No. of respondents
Male	71	Up to 2,00,000/-	26
Female	33	2,00,001 to 5,00,000/-	29
		5,00,001 to 10,00,000/-	29
		10,00,001 and above	20
Total	104	Total	104

the respondents belonging to generation Y with the highest number of users followed by YouTube (127), Instagram (116), Facebook (115), and Twitter (50). And again WhatsApp (104) was having the highest number of users in the case of baby boomers followed by YouTube (95), Facebook (53) Instagram (06), and Twitter (01).

Choice of the Appropriate Statistical Approach

To test the causal relationships among the constructs of the UTAUT2 model and make a comparison between generation Y and baby boomers, the technique of multi-group path analysis based on structural equation modeling (SEM) is applied in the current study. Path analysis is considered an extension of regression and reduces the effort of testing the relationships with more than one regression model (Stage et al., 2004; Streiner, 2005). So, the use of multi-group path analysis is justified for the current study instead of running separate regression models for the two groups. Hence, it was considered a suitable technique and was preferred in this situation for making the intergroup comparison.

Determining Adequacy of Data

The adequacy of data related to different constructs of technology acceptance and usage in the UTAUT2 model was determined using the coefficient Cronbach's alpha and the value of each construct is presented in Table 4. The alpha values are ranging from .808 to .927 which is an indicator of the internal consistency of the data. Thus, the constructs utilized from the UTAUT2 are found to be reliable measures for accessing the acceptance and use of mobile social media.

Implementing the Multi-Group Analysis

Next, the multi-group path analysis using structural equation modeling is applied through Lisrel to know whether the UTAUT2 model is a perfect fit across the two generations for measuring the acceptance of mobile social media. This would also help to find out if any differences exist in terms of the determinants of adoption among the two groups. Lisrel being one of the most robust applications for structural equation modeling (Malhotra et al., 2014) is utilized in the current study. By default, the Lisrel program constrains the path coefficients of parameters in a multi-group analysis. So, to find out the comparative relationships between generation Y and baby boomers among the different constructs of the UTAUT2 model, the path coefficients among the two groups are set free to vary.

Table 2. Statements related to acceptance of mobile social media based on UTAUT2

Constructs	Statements
PE1	1. I find mobile social media useful in my daily life.
PE2	2. Using mobile social media increases my chances of achieving things that are important to me.
PE3	3. Using mobile social media helps me accomplish things more quickly.
PE4	4. Using mobile social media increases my productivity.
EE1	5. Learning how to use mobile social media is easy for me.
EE2	6. My interaction with mobile social media is clear and understandable.
EE3	7. I find mobile social media easy to use.
EE4	8. It is easy for me to become skillful at using mobile social media.
SI1	9. People who are important to me think that I should use mobile social media.
SI2	10. People who influence my behavior think that I should use mobile social media.
SI3	11. People whose opinions that I value prefer that I use mobile social media.
FC1	12. I have the resources necessary to use mobile social media.
FC2	13. I have the knowledge necessary to use mobile social media.
FC3	14. Mobile social media is compatible with other technologies I use.
FC4	15. I can get help from others when I have difficulties using mobile social media.
HM1	16. Using mobile social media is fun.
HM2	17. Using mobile social media is enjoyable.
HM3	18. Using mobile social media is very entertaining.
PV1	19. Mobile internet used to access social media is reasonably priced.
PV2	20. Mobile social media is a good value for the money I spend on the mobile internet.
PV3	21. At the current price of mobile internet, mobile social media provides a good value.
HA1	22. The use of mobile social media has become a habit for me.
HA2	23. I am addicted to using mobile social media.
HA3	24. I must use mobile social media.
HA4	25. Using mobile social media has become natural to me.
BI1	26. I intend to continue using mobile social media in the future.
BI2	27. I will always try to use mobile social media in my daily life.
BI3	28. I plan to continue to use mobile social media frequently.

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, HM: Hedonic Motivation PV: Price Value, HA: Habit, BI: Behavioral Intention

The multi-group path diagrams for both generation Y and baby boomers are shown in Figure 2 and Figure 3 respectively.

Table 5 shows a p-value of 0.69 in the case of Chi-Square which is greater than 0.05. It is a non-significant value and represents a good model fit (Malhotra & Dash, 2011). This means that the parameters of UTAUT2 are equivalent across the two groups. Further, it is observed that the GFI (global fit index), NNFI (non-normed fit index), and CFI (comparative fit index) values of 0.92, 1.01, and 1.0 respectively are greater than 0.90 thereby indicating a good model fit (Hu & Bentler, 1999; Malhotra & Dash, 2011). Furthermore, the RMSEA (root mean square of approximation) also known as an absolute fit index shows a significant value of 0.0 which is less than the threshold value

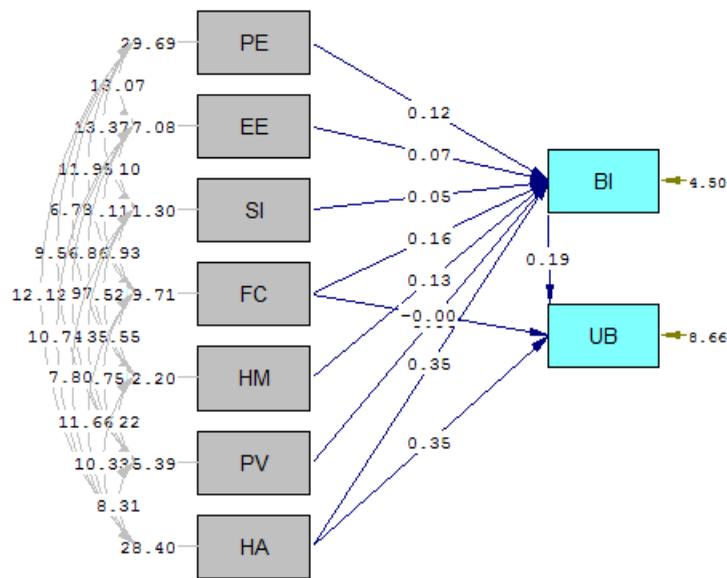
Table 3. User statistics generated from the survey

Type of Mobile Social Media Application	No. of Users (GenY)	No. of Users (BB)
WhatsApp	139	104
YouTube	127	95
Facebook	115	53
Instagram	116	06
Twitter	50	01

Table 4. Reliability statistics

	PE	EE	SI	FC	HM	PV	HA
Cronbach's Alpha	.866	.891	.898	.808	.927	.820	.846

Figure 2. Path diagram showing the UTAUT2 relationships for Generation Y



Chi-Square=9.11, df=12, P-value=0.69326, RMSEA=0.000

of 0.05. This also reflects a good model fit to the data (Hu et al., 1999; Malhotra & Dash, 2011). Finally, it is found that the SRMR (standardized root mean squared residual) value of 0.054 is also less than the threshold value of 0.08 which is again considered an indicator of a good model fit (Hu & Bentler, 1999).

Thus, the goodness of fit indices makes it evident that the model fits the data reasonably well. Further, the results obtained in terms of the effects of relationships of the path model are shown in Table 6.

Figure 3. Path diagram showing the UTAUT2 relationships for Baby Boomers

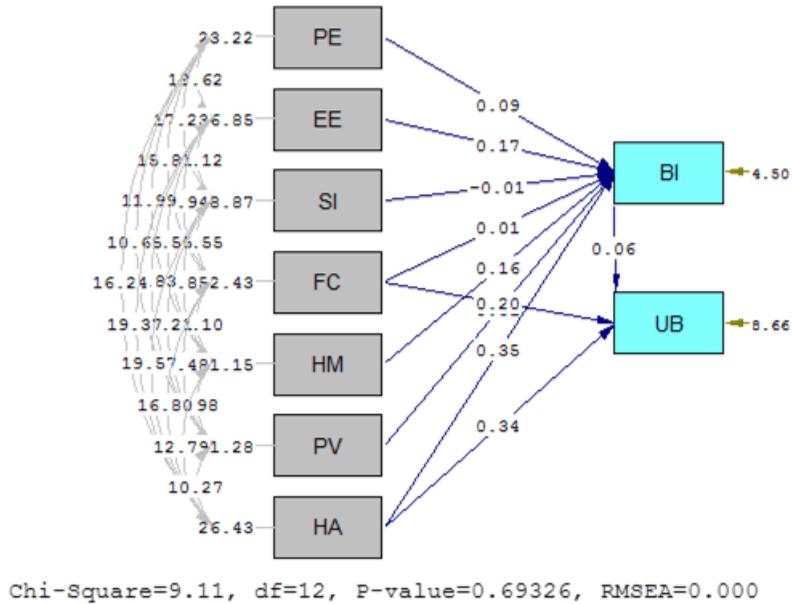


Table 5. The goodness of fit indices

Chi-Square	GFI	NNFI	CFI	RMSEA	SRMR
0.69	0.92	1.01	1.0	0.0	0.054

Table 6. Multi-group path unstandardized (b) coefficients (N_{GenY}=145, N_{BB}=104)

Age Group	Path relationship	b _{GenY}	p-value	b _{BB}	p-value
Gen Y (R ² =0.69) BB (R ² =0.71)	PE → BI	0.12 ^{NS}	.06725	0.094 ^{NS}	.128511
	EE → BI	0.073 ^{NS}	.509254	0.17**	.001423
	SI → BI	0.046 ^{NS}	.483927	- 0.012 ^{NS}	.794864
	FC → BI	0.16**	.038452	0.0054 ^{NS}	.935442
	HM → BI	0.13 ^{NS}	.186835	0.16**	.004655
	PV → BI	-0.063 ^{NS}	.389789	0.0054 ^{NS}	.937033
	HA → BI	0.35**	.000000	0.35**	.00000
Gen Y (R ² =0.41) BB (R ² =0.45)	FC → UB	-0.00020 ^{NS}	.998404	0.20**	.003977
	HA → UB	0.35**	.000096	0.34**	.00000
	BI → UB	0.19 ^{NS}	.164529	0.057 ^{NS}	.429528

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, FC: Facilitating Conditions, HM: Hedonic Motivation PV: Price Value, HA: Habit, BI: Behavioral Intention, UB: Use Behavior
Notes: **Significant at p < 0:05; ^{NS}Not significant at p > 0:05

Table 6 presents the R^2 value of 0.69 and 0.41 for generation Y. It reveals that a considerable amount of variation in the behavioral intention and use behavior of mobile social media among generation Y is explained by the constructs of the UTAUT2 model utilized in the current study. Similarly, the R^2 value of 0.71 and 0.45 also depicts that a significant amount of variation is explained by the UTAUT2 determinants of technology acceptance in the case of the baby boomers.

Further, Hypothesis H_{1a} and H_{1b} stated that the effect of performance expectancy on behavioral intention would be significant for generation Y and baby boomers respectively. However, Table 6 shows that performance expectancy has no significant relationship with the behavioral intention of the two groups. So, both H_{1a} and H_{1b} are rejected and the path representing this relationship could not be compared. H_{2a} and H_{2b} stated that effort expectancy will have a significant effect on the behavioral intention of generation Y and baby boomers. The results have shown that the effect of effort expectancy is significant on the behavioral intention of baby boomers and insignificant for generation Y. Hence, H_{2b} is true but H_{2a} is not supported and it could be said that significant differences exist between the two groups in terms of effort expectancy. H_{3a} and H_{3b} stated that social influence will have a significant impact on the behavioral intention of generation Y and baby boomers. The results have shown an insignificant effect of social influence for both groups. So, H_{3a} and H_{3b} are rejected and the path showing this relationship could not be compared. H_{4a} and H_{4b} stated that facilitating conditions will have a significant effect on the behavioral intention of generation Y and baby boomers. The results obtained reveal that facilitating conditions have a significant effect on the behavioral intention of generation Y and are insignificant for baby boomers. Thus, H_{4a} is true and H_{4b} is not supported. It shows that the groups differ significantly in terms of facilitating conditions. H_{5a} and H_{5b} stated that hedonic motivation will have a significant effect on the behavioral intention of generation Y and baby boomers. The results have shown that hedonic motivation significantly affects behavioral intention for baby boomers and is non-significant for generation Y. Hence, H_{5b} is true and H_{5a} is not supported. It is observed that there is a significant difference among the groups in terms of hedonic motivation. H_{6a} and H_{6b} stated that the effect of price value on behavioral intention would be significant for generation Y and baby boomers. However, the results have shown that the price value has an insignificant effect on the behavioral intention of both the generation Y and baby boomers leading to the rejection of H_{6a} and H_{6b} . Thus, the comparison between groups could not be made. H_{7a} and H_{7b} stated that habit has a greater effect on the behavioral intention of generation Y and baby boomers. The results have shown that the effect of habit on behavioral intention is significant for both groups. Hence, H_{7a} and H_{7b} are supported. In this case, the multi-group analysis did not reveal any significant difference between generation Y and baby boomers.

H_{8a} and H_{8b} stated that facilitating conditions will have a greater effect on user behavior for generation Y and baby boomers. The results depict that facilitating conditions have a significant effect on baby boomers and are insignificant on generation Y. H_{9b} is true and H_{9a} is not supported. However, significant differences exist between the two groups in terms of facilitating conditions. H_{9a} and H_{9b} stated that habit will have a greater effect on use behavior for generation Y and baby boomers. The results have shown that habit has a significant effect on use behavior for both generations. Thus, H_{9a} and H_{9b} are supported and it is evident that the two groups do not differ significantly in terms of habit. Further, H_{10a} and H_{10b} stated that behavioral intention will have a greater effect on the use behavior of generation Y and baby boomers. The results reveal that this relationship is insignificant for both groups. So, H_{10a} and H_{10b} are rejected and the groups could not be compared.

FINDINGS AND DISCUSSION

The findings of the current study provide special insights into the field of technology adoption and internet marketing using mobile social media. In the context of the different determinants mentioned in UTAUT2, it is found that performance expectancy does not have a significant effect on the behavioral intention of both generation Y and baby boomers. It means that mobile social media may not benefit both generation

Y and baby boomers in fulfilling their tasks. This contradicts the findings of the studies conducted by Cimperman et al. (2016), and Isa and Wong (2015) which stated that the effect of performance expectancy on behavioral intention is significant and higher in the case of generation Y than baby boomers. Next, it is found that effort expectancy has a considerable effect on the behavioral intention toward the use of mobile social media for baby boomers which is not true in the case of generation Y. This shows that the two cohorts differ significantly in terms of this determinant. Thus, ease of use of technology proves to be an important factor for elderly people in framing their behavioral intention towards the usage of mobile social media. It differs from the findings of the previous studies which have shown a significant effect of effort expectancy on the behavior intention of the young generation (Chang et al., 2019; Isa & Wong, 2015). Further, it is revealed that social Influence does have a significant effect on the behavioral intention of both generation Y and baby boomers which contradicts the findings of the previous studies conducted on social media by Abdat (2020), Ramadani et al. (2014), and Salloum et al. (2018a). This shows that the behavioral intention to use mobile social media of both young and elderly people is equally influenced by their family members or friends. Next, the current study has found that facilitating conditions significantly affect the behavioral intention of generation Y and not of baby boomers. This depicts that the extent of resources available to generation Y affects their intention to use mobile social media. It matches with the findings of the study conducted by Abdat (2021) that also revealed a significant effect of facilitating conditions on the behavioral intention to use mobile social media which is true for generation Y. This may happen because of the higher knowledge, compatibility with other technologies, and availability of assistance to the younger group in the use of mobile social media applications. Next, it is revealed that hedonic motivation significantly affects behavioral intention for baby boomers and not for generation Y. It shows that the feelings like fun, entertainment, and pleasure considerably affect the intention towards the use of mobile social media for the elderly group which is insignificant for the younger age. This is in line with the findings of previous studies conducted by Çera et al. (2020), García Botero et al. (2018), Salloum et al. (2019) for baby boomers and Mehta et al. (2019), and Venkatesh et al. (2003) for generation Y. Further, the effect of Price value on behavioral intention to use mobile social media is found to be insignificant for both generation Y and baby boomers. It may be due to the availability of social media services at no direct cost to the users. This matches the findings of the studies conducted by Akgül et al. (2019) and Gharaibeh et al. (2020). Next, it is found that habit has a significant effect on the behavioral intention toward the use of mobile social media for both generation Y and baby boomers. It shows that the repetitive and continuous use of technology slowly forms a habit that is equally important in deciding the behavioral intention towards usage of mobile social media for both the young age and old age groups. This finding aligns with the results of the studies conducted by Akgül et al. (2019), Al-Zedjali et al. (2014), and Hazzam and Lahrech (2018). Further, in the case of actual usage, it is found that behavioral intention has an insignificant effect on use behavior for both groups. This is opposite to the findings of the studies conducted by Puriwat and Tripopsakul (2021), Berry (2017), and Salloum et al. (2018a). So, there might be some other factors along with behavior intention which affects the use behavior. Next, it is revealed that facilitating conditions significantly affect the use behavior of baby boomers and not generation Y. It reflects that the availability of resources considerably affects the actual usage of mobile social media for the elderly. This matches with the findings of the study conducted by Puriwat and Tripopsakul (2021) on the case of baby boomers. Finally, it is found that habit has a significant effect on the use behavior of both generation Y and baby boomers. It means that habit forms part of repetitive behavior and affects the actual use of mobile social media for the young and old age groups equally. This is in line with the findings of the studies conducted by Hossain (2019), Hsiao et al. (2015), Khang et al. (2014), and Sheikh et al. (2017) that also stated a significant effect of habit on the use behavior towards social media.

IMPLICATIONS

This study provides important inferences for internet marketers and other stakeholders involved in the delivery of mobile social media services. It could benefit those engaged in conducting mobile

social media marketing campaigns. The understanding of differences in acceptance between the two generational cohorts gained in the current study may help to achieve this objective. Findings revealed that the effect of performance expectancy on behavioral intention is insignificant for both baby boomers and generation Y. So, those involved in the development of mobile social media should work on providing such utilities in the service that may help both the young age and elderly to accomplish their day-to-day tasks more efficiently. These features could be further utilized by internet marketers for creating effective sales promotions and social media-based campaigns. Effort expectancy deserves special attention and an easy-to-use interface should be provided in various social media apps specifically for the elderly population to increase their behavioral intention. The social influence of family members, friends, and other colleagues needs to be given due consideration by internet marketers while conducting social media campaigns using mobile phones. Creators of mobile social media should work on providing robust applications having the ability to operate with lower facilitating conditions for both the young and the elderly people which may eventually increase their behavioral intention and use behavior. Hedonic motivation is found to be an important factor driving the social media use of the elderly population. Hence, more applications with fun and pleasure should be introduced for the elderly for increasing their intention to use mobile social media. The price value is to be given the least attention as the mobile social media service is usually available free of cost to the users. Usage of mobile social media is observed to be repetitive for both young and elderly people and affects behavioral intention and actual usage equally. So, this habitual behavior could be effectively utilized by marketing decision-makers and application developers for implementing their mobile social media-based strategies effectively.

LIMITATIONS OF THE STUDY

The current study has certain limitations which need to be acknowledged. This study was undertaken on the population belonging to be state of Punjab in India, so the findings of this study could be well suited to the population with a similar socio-cultural background. In addition, due to the limitation of the Covid19 pandemic, the data collection in this study was carried out through an online Google survey based on the virtual snowball technique which may have some limitations of sampling bias and representativeness of the sample. Further, the study is concerned only with the two age groups i.e. generation Y and baby boomers, and the acceptance behavior of the other groups is ignored. It is believed that these limitations could be addressed in future studies concerned with mobile social media adoption.

DIRECTIONS FOR FUTURE RESEARCH

This work was conducted in the state of Punjab in India, However, future research considering the constructs used in this study could be undertaken on some other population belonging to a different geographical region. It was focused on the two-generational cohorts i.e. younger and elderly represented by generation Y and baby boomers thereby ignoring the other group of generations. Some studies in the future could throw light on these generational groups ignored here. Further, the study was based on a multi-group analysis of the acceptance and use of mobile social media using UTAUT2. However, some future research may demand the utilization of UTAUT3 in social media research. In the times to come, specific research work could be undertaken to address the issue of moderating the role of different consumer generations in the relationships between determinants of acceptance of mobile social media, and behavioral intention and use behavior. This would enable the researchers to provide a valuable contribution to the literature concerned with the adoption and use of mobile social media applications.

CONCLUSION

Mobile social media is getting greater emphasis nowadays for being an important mode of virtual communication among people. This study was undertaken to examine the role of age in the acceptance

of mobile social media by utilizing the determinants of the UTAUT2 model and provides vital implications for the application development and future research in the field of social media-based internet marketing. It highlighted important differences between the young and elderly generations which could be of pivotal interest to the researchers and those involved in the delivery of a social media service. The findings of this study reveal that the younger age and elderly groups vary in terms of some of the determinants of technology acceptance. These differences could be further utilized by application developers and internet marketers for providing customized social media services to users based on their age. It may also help businesses to organize effective social media campaigns and formulate suitable internet marketing strategies for different generations. Finally, it is concluded that organizations involved in the delivery of mobile social media services should consider the variations among the young age and old age groups in terms of the determinants of adoption as proposed in this study. This would lead to the quick adaptability of different age cohorts in the field of mobile social media and the effective organization of online sales promotion campaigns.

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