

## How Twitter advertising influences the purchase intentions and purchase attitudes of Indian millennial consumers?

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**Abstract:** This research investigates the influence of Twitter advertising on the purchase intentions and purchase attitudes of the millennial internet users in India, as well as to assess if the usage and demographic variables had an influence on their buying intentions and buying attitudes. A convenient sample was used to survey 500 Indian millennials via self-administered structured questionnaires. The results reveal Twitter advertising has a positive impact on the purchase attitudes of Indian millennials. More experienced Twitter users; logged-on more frequently; spent fewer hours; followed a greater number of companies/brands; were female; and younger Indian millennial respondents had the most favourable perceptions towards Twitter advertising. The research findings will help traditional organisations to acknowledge and adapt their promotional strategies to include Twitter advertising in their marketing budgets. This study also contributes to attitudinal research literature in an Indian context, which lacks research in social media advertising featuring the millennial segment.

**Keywords:** millennials; generation Y; buying behaviour; purchase intentions; purchase; consumer attitudes; Twitter marketing communication; social media marketing; India.

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## 1 Introduction

Technological innovation and interactive digital technology has witnessed significant growth, especially through the internet technology, social media based applications, smartphones and other means of information communication technology (ICT). Users can freely post their opinions, beliefs, thoughts, intents and experiences on most of the social media platforms (SMP) (Haque et al., 2019). Social media users are based on their personal opinions and recommendations due to the progression of internet usage globally (Vohra and Bhardwaj, 2019).

This is possible through the irrevocable dispersal of smartphones (Duffett, 2015a), which is a new mode of communication channel for users' direct interaction (Alansari et al., 2018). The main objective of the social networking sites (SNS) is to socialise by bonding and developing a sense of belonging among the family members and friends among the younger generations (Triantafillidou and Siomkos, 2018). However, with a large number of companies established a social media presence to target the younger generations with brand engagement strategies (Khadim et al., 2018). Hence, companies have realised the significance of the social media as a promotional tool to reach billions of potential customers for marketing purposes. eMarketer (2020) forecasted that SMP are expected to generate \$9.45 billion in ad revenues in 2019, and grow 46.6% to

\$13.86 billion in 2020. About 86% of the total Twitter revenue is derived from advertising, which amounted to \$2.61 billion in 2018 and a growth of 24% (Investopedia.com, 2020). The steady growth in Twitter's revenue indicates the change from traditional media tools to the online/digital media by the organisations.

Numerous advertising models were developed to examine the influence of various hierarchical consumer attitudes, which included cognitive (e.g., awareness), affective (e.g., liking) and behavioural (e.g., purchase) responses, since attitudes towards advertising were deemed to be an appropriate advertising effectiveness measure (Barry, 1987). A number of these advertising response hierarchy models maintained that purchase intention and purchase were effective measures of consumer behavioural attitudes, but were all developed via traditional advertising (Barry, 1987). Hence, further research is necessary to determine if SMP advertising result in similar attitudes compared to traditional media advertising. A number of previous studies identified the attitudes and perceptions relation to information exchange towards online advertising (Kapoor et al., 2016; Shareef et al., 2019; Arora and Agrawal, 2020; Hyoung et al., 2020), and social media (Bianchi and Andrews, 2018; Kapoor et al., 2018; Triantafillidou and Siomkos, 2018; Liu, 2019; Read et al., 2019; Gentina et al., 2020). Some researchers also maintained that online advertising can also be assessed through awareness of the brand, product recall, and the changes in the attitude and behaviour (Shareef et al., 2018; Al-Adwan and Kokash, 2019; Chinchanchokchai and de Gregorio, 2020; Duffett, 2020; Vithayathil et al., 2020). Hence, this study seeks to ascertain if Twitter advertising (i.e., digital advertising) has an influence of on behavioural (purchase intention and purchase) attitudinal responses.

The online consumer behavioural patterns and personal compatibility in evaluating the credibility towards online commercials are substantially different compared to the traditional consumer behaviour (Shareef et al., 2018). Hence, advertising on the social media such as Twitter, YouTube, Facebook, Instagram, LinkedIn and others is of high concern to the marketing organisations, business managers and the academic community. Social media has emerged as a regular and important tool of marketing the products across different industries (Alalwan et al., 2017; Shiao et al., 2017, 2018; Kapoor et al., 2018). Vithayathil et al. (2020) indicated that Facebook, Twitter and other SMP users were associated with shopping at Amazon, Best Buy and Walmart.

SMP have changed the way of consumer interaction with the brands and the companies, and the way firms comprehend the consumer behaviour (Arora and Sanni, 2019). Social media has developed as a new direct medium of marketing communication in the business to consumer (B2C) context (Alansari et al., 2018). There is a positive direct/indirect effect of information sharing, social support and the relationship quality in social commerce on brand co-creation, while users' privacy concerns moderate brand co-creation (Tajvidi et al., 2018). Though online social networks render the younger generation to the ills of online marketing, the teenagers are empowered to develop social skills via online social networking, which further helps safeguard themselves from deceptive marketing practices (Gentina et al., 2020). Azam and Aldehayyat (2018) revealed that customers' reviews and recommendations, ratings, trust and brand familiarity influenced users' intention towards social commerce on the SNS, while users' familiarity with the social platform was not found to be a significant factor. Social referrals generated by the consumers resulted in an increase in online sales and social commerce due to Facebook deals (Kim and Kim, 2018). Another recent study shows that there was a mediating effect of attitudes between SMP usage; vulnerability to the social

media influence; and peer influence on SMP advertisement avoidance towards social media advertising (Chinchanchokchai and de Gregorio, 2020). Ko (2018) postulates that SNS users are motivated to engage in social-oriented activities, which have an influence on anticipated positive emotions and perceived behavioural control attitudes.

The exact period of when millennials (also known as Generation Y) were born differs from author to author, but for the purposes of this study, the range was 1981–2000 (Duffett et al., 2019a, 2019b, 2020). Generation Y were raised in a digital world and are more likely to use SMP compared to people from older generations, since they have not experienced the world without the digital interactive technology. Social media is considered as medium of global awareness and information sharing platform and, consequently, millennials have formed long lasting symbolic relationship with brands on these digital platforms (Haddouche and Salomone, 2018; Helal et al., 2018; Herrando et al., 2019). Most of the research on the social media attitudes and usage by the millennial cohort is in the context of developed countries where this young generational cohort has an unobstructed access to the social media and advanced information technology services. Moreover, there is comparatively little research in the case of emerging countries such as India. The Asian region has observed the highest growth among the internet and the social media users (Chaffey and Smith, 2017). Hence, social media marketing research is limited in context of the emerging markets (Ilavarasan, 2018; Duffett, 2020) and the attitudes and usage patterns of the developing countries millennials may differ when compared to their counterparts from the developed nations pertaining to the wealth, technological set-up and the varying cultures (Bolton et al., 2013; Herrando et al., 2019; Duffett, 2020). Hence, this study focused on the Twitter social media users in India, which comprise of around 440 million millennial users (Digitalcrew.com, 2019). Millennial users from a broad-spectrum context were considered for the study, comprising of the university postgraduate students from the urban, semi-urban and rural areas. Thus, this research intends to assess whether Twitter advertising is effective in realising two consumer behavioural attitudes, viz. purchase intentions and purchase attitudes among the Indian millennial user segment.

## **2 Literature review**

### *2.1 Social media background*

Social media is defined as a cohort of web-based apps grounded on the theoretical and technological base of Web 2.0, which facilitates the development and exchange of data/information created by the online consumers (Kaplan and Haenlein, 2010). This definition of social media acknowledges social media's role in enabling the information/data to be shared across similar type of customers. Earlier, marketers used traditional mass media channels with the intent to create awareness, develop brand preferences and stimulate purchase. The adoption of social media especially among the younger generation and has shifted the focus of the marketers from traditional media channels to SMP. Hence, due to the speed of online communication and the availability of numerous sources of information, social media has emerged to be more relevant and effective compared to the traditional tools of advertising (Alansari et al., 2018). Likewise, the marketers also recognised the social community influence in terms of being interactive through the customised sections, convenience, experiences, search and open

exchange of information on SMP (He and Zha, 2014; Helal et al., 2018). Shen et al. (2016) identified four classes of the purpose, which users access online social networks to communicate:

- 1 affect exchange
- 2 influence or power exchange
- 3 information exchange
- 4 goods and services exchange.

These reasons constitute an important conduit for global marketing communications, which result in large advertising budgets being allocated to them.

The users' purchase intention is influenced by the social media applications' ease of use, which is followed by the apparent utility through the users' purchase attitude (Fard and Marvi, 2019). Akman and Mishra (2017) affirm that the users' intentions are favourably associated to perceived trust, ease of use, societal pressure, fulfilment and sentence regarding social commerce adoption. Factors related to online purchase intentions such as facilitating conditions, users' habits and the behavioural intentions are positively related with the usage behaviour (Sheikh et al., 2017). The trust of users in the SNS influences their purchase intentions positively and encourages them to seek information, which further enhances trust and purchase intentions (Al-Adwan and Kokash, 2019). The high usage of the SMP and high vulnerability towards the social media are related positively to the advertising attitudes of the SMP, while the higher peer influence vulnerability is related negatively (Chinchanachokchai and de Gregorio, 2020). The attitudes of consumers are strongly influenced by peer communication, brand compatibility and brand credibility during engagement with the retail brands on Facebook (Bianchi and Andrews, 2018). Social media marketing efforts involving luxury brands with a focus on entertainment, interaction and style dimensions enhance customer engagement significantly, while customisation dimension is not significant (Liu et al., 2019). A strong association exists between consumers' intention to interact and the possibility of purchase via official Facebook page of the brand (Bianchi and Andrews, 2018).

The significant growth of online social networking channels has altered the mechanism that current and prospective customers interact with different the brands and product categories, which results in various marketing practices in a bid to target and retain customers. Among the SNS, nearly seven out of ten firms use Facebook, Twitter accounts for 46%, LinkedIn (37%) and YouTube (25%). The main social media advertising platforms utilised by marketers were Facebook and Twitter (Digitaldoughnet.com, 2018), and same two social media tools were preferred channels for business promotional purposes (Leung et al., 2015). Therefore, this research will consider the influence of Twitter advertising on millennials behavioural attitudes.

## *2.2 Twitter as a medium of advertising*

Twitter is a San Francisco based popular social networking microblog founded by Jack Dorsey in 2006. Registered users on Twitter can send short 280-character messages called tweets. Since the tweets are available publicly, they had been a source of rich user data for the marketing firms (García-León, 2019). Twitter has around 330 million active

users on a monthly basis, while 152 million users are active daily, and 500 million tweets are made in a single day. 38% of Twitter users are aged 18–29 years, while 26% users are aged 30–49 years. Therefore, seven out of ten Twitter users are classified as millennials (Omnicore, 2020). Statista (2019) reveals that India is ranked seventh based on Twitter users in the list. Twitter is considered as one of the most widely used SMP where the users literally post their purchase intent and has emerged as an important tool for online discussions, trends and viral information (Haque et al., 2019; Jain and Sinha, 2020). Twitter is viewed as a new form of effective communication technology facilitating faster direct and unfiltered information providing access to a large audience (Craig and Amernic, 2019). Twitter also includes various marketing functions such as viral marketing, brand analysis, political movement propagation, news dissemination, and opinion leaders for empowered governance (Jain and Sinha, 2020). In business markets, firms use Twitter in sourcing information, facilitating promotion, and harnessing innovative ideas within the industrial sector (Cripps et al., 2020).

Customers are able to partake in getting and distributing brand-related info on Twitter through the subscription to the authentic brand/products sources (e.g., to select and follow the brand related Twitter pages). Twitter is considered as a popular microblogging SNS that facilitates electronic word-of-mouth (eWOM) most profoundly. Through eWOM, users engage themselves by posting the brand information on SMP, and through the user-to-user and user-to-content interaction, brand followers actively participate in online discussions on Twitter (Chu and Sung, 2015; Corbett et al., 2018). Consumer's brand engagement on Twitter is positively influenced by the brand's customer service and intimacy, as well as mediates the association between the two factors and the co-promotion tendencies of consumers (Read et al., 2019). Highly narcissist millennials defends the brands when they receive negative tweets from other users on Twitter (Sashittal and Jassawalla, 2019). The relationship between the brand and the customer influence the brand re-tweet behaviour. A survey based research on 315 Korean customers found that the customers who follow brands on Twitter re-tweet brand messages, outscore the customers who do not re-tweet related to the identification of brand; trust in a brand; commitment to the community; intention for community membership; frequency of the Twitter usage; and overall number of posts on Twitter (Kim et al., 2014). Twitter is used by the tourism organisations to advertise special events and attractions, and building awareness of brands by spreading tweets through a multipart network of connected users' accounts. However, network hotels and restaurants are perceived as stakeholders with low importance (Bokunewicz and Shulman, 2017). Bianchi and Andrews (2018) indicated of a robust association between the intentions of engaging the customers and the possibility of buying through the retailing brand's page on the social media. Tweets are also perceived to be relatively easy to read and access, which results in better customer engagement (Davis et al., 2019). Users' Twitter discourses around a campaign revealed that most of the discourse was within the campaign's message framework. A comparison among ideological and conceptual hashtags revealed homophily is demonstrated through ideological ones (Xu and Zhou, 2020). Twitter social bots signified the effectiveness of the social bots in spreading WOM about the brands by using volumes and emotions as the effective mechanisms (Liu, 2019).

Although Twitter is being considered as a powerful medium for the marketing communications, several consumers' based studies related to the social media mainly focus on the Facebook (Shareef et al., 2018; Shiau et al., 2018; Triantafillidou and

Siomkos, 2018; Gentina et al., 2020) or SNS in general (Lynn et al., 2017; Shiau et al., 2017; Bianchi and Andrews, 2018; Helal et al., 2018; Kapoor et al., 2018; Florenthal, 2019; Jinang et al., 2019; Liu et al., 2019; Read et al., 2019; Shareef et al., 2019; Arora and Agarwal, 2020; Chinchanchokchai and de Gregorio, 2020; Hyoung et al., 2020; Vithayathil et al., 2020) mainly in a developed country context. A Twitter based study on the hotel industry revealed that when the customers develop positive attitudes toward hotel tweets, the customers' attitudes towards the hotel's brand become positive on their Twitter page, which results in the intention to book hotel and spread positive WOM electronically (Alansari et al., 2018). In B2B markets, the value of the firm post adoption increased after Twitter adoption, and could possibly lead the managers of manufacturing firms to active Twitter usage and sharing of product-related information on social media (Majumdar and Bose, 2019). Architecture of different Twitter accounts is used for various groups of company's stakeholders, and the tweets were more information and action oriented rather than discussion enabled (Zhang et al., 2020). This study attempts to identify consumers' motivations in terms of Twitter and their desire to follow brands regarding millennial cohort consumers. Additionally, the study strives to provide insights how to utilise Twitter as a tool in the most effective way for building meaningful consumer-brand relationships.

### *2.3 Millennials and SNS advertising*

As previously mentioned, the precise period of millennials varies between authors, but are deemed to be 18 to 32 years for the purposes of this study. Millennials exhibit certain characteristics due to the era in which they were born, so exhibit similar attitudes and behaviour (Moore, 2012). For example, they tend to choose services and experiences related to material goods and signify the importance of authenticity, innovation, and exclusivity. Millennials are self-controlled; responsible; creative; ambitious; technologically savvy; embrace ethnicity; enjoy working independently, but enjoy interacting with others; and operate the global landscape via digital platforms (Sloan et al., 2015; Priporas et al., 2017; Haddouche and Salomone, 2018; Pew Research Center, 2018; Herrando et al., 2019). Millennials are highly technologically developed compared prior generations, as they cannot remember life without the vast array of digital technology, viz. such as internet, social media, mobile devices, video games, computers, video-on-demand, high-definition screens and a huge spectrum of other digital conduits in the age of omnipresent multimedia devices and never-ending online connectivity. Millennials are ethnically varied; generally have a good education; and no previous generation has been as socially connected, as they are not restricted to interacting and engaging with people and organisation in their own nations, but have the whole globe as a digital playground. This generation is extremely technology inclined and deems texting, instant messaging, tweeting, and posting on content and videos on social media as normal everyday behaviour, which is as natural as breathing, talking, sleeping and eating (Sloan et al., 2015; Haddouche and Salomone, 2018; Pew Research Center, 2018; Herrando et al., 2019). The social media usage characteristics of millennial users is of specific concern to the firms and the marketers, since these might suggest future consumption patterns and related behaviour, as well as opinions towards the products and brands (Bolton et al., 2013; Pew Research Center, 2018). Furthermore, communication originating through social media through the online product reviews, users-posts and WOM have an influence on millennial purchase decisions (Pantano et al., 2017; Pantano

and Gandini, 2018; Haddouche and Salomone, 2018; Kapoor et al., 2018; Herrando et al., 2019). Hence, the way millennials use the social media is of prime interest to firms and marketers as it provides gives an understanding of how the prospective customers are expected to behave (Bolton et al., 2013). Millennials' perceptions towards particular brands would also be insightful to firms, since social networks especially appeal more to the younger cohorts (Bolton et al., 2013; Hwang and Griffiths, 2017; Haddouche and Salomone, 2018; Herrando et al., 2019).

## *2.4 Why Indian millennials?*

One of the gaps identified from the extensive review of past works, is the fact that several studies had been conducted investigating the attitudes and usage of the millennial customers based in developed countries. The socio-economic and the infrastructural abilities of the advanced nations are much different compared to emerging economies due to which there is an extensive usage of social media among the developed nations' users. Bolton et al. (2013) proposed that attitudes and usage towards the social media of the millennial users from emerging countries might be different from the wealthier millennial users in the advanced countries, mainly due to the superior technological infrastructure and socio-cultural context. India is labelled as a fast growing developing country with a very higher percentage of the younger population. The multi-cultural setting with an ancient caste based socio-cultural stratification makes India a very interesting and insightful to study (Chaudhary, 2018). India has emerged as a culturally imperative and diverse economy; hence as per the contextual gap in literature, this study is based on the Indian millennial social media users. India is widely considered among the youngest countries in the world, especially in terms of average age of the citizens. There are around 440 million millennials in India, which roughly comprise 30% of the total population. Indian millennials are distinctive from their contemporaries in developed countries, since this cohort has witnessed the transition period of economic liberalisation in between 1991 to 1994. Hence, Indian millennials have emerged as the first non-socialist generation of the country, which focuses on spending rather than saving due to the GDP enabled income growth that fuels India's consumption growth. Around 85% of Indian millennials are married; are parents (presumably and with their children) and represent the country's first cohort having globalised consumption tendencies (Livemint.com, 2019). India (next to China) has the world's next greatest base of online users – Twitter has exhibited one of the fastest market growth rates, which is estimated at 11.45 million active Indian users (Statista, 2020). Hence, this study aims to understand if Twitter advertising could influence the purchase intentions and purchase attitudes of Indian millennial consumers.

## **3 Research questions**

The research questions of the study pertain to investigate the following aspects:

- 1 What influence does Twitter advertising have on purchase intention attitudinal responses among millennial customers?
- 2 What influence does Twitter advertising have on purchase attitudinal responses among millennial customers?

- 3 Do usage variables have an influence on millennials' purchase intention attitudinal responses due to Twitter advertising?
- 4 Do usage variables have an influence on millennials' purchase attitudinal responses owing to Twitter advertising?
- 5 Do demographic variables have an influence on millennials' purchase intention attitudinal responses owing to Twitter advertising?
- 6 Do demographic variables have an influence on millennials' purchase attitudinal responses owing to Twitter?

## **4 Research methodology**

### *4.1 Sampling and collection of data*

The research population included the post-graduate university students who had used Twitter, and were exposed to advertising on this instant messaging platform. The respondents were considered from five different higher education institutions located in the urban and sub-urban areas in the Aligarh district of North India to have a broader spectrum of the millennial segment in terms of demographics. A convenience sampling method was employed to sample 500 respondents to ensure representation of different demographic (age and gender) and usage variables evident in the millennial cohort. The respondents were asked to participate freely in the study on their accord and no remuneration was given. The self-administered survey instrument (questionnaire) was distributed to potential respondents who were prepared to participate in the study and return it in their own time upon completion. The questionnaires were circulated using the face-to-face survey distribution method and all responses were confidential, since no personal details were requested.

### *4.2 Variable measurement*

The survey questionnaire for the current study was adapted from Duffett's (2015a, 2015b, 2016, 2017a, 2017b) and Duffett and Wakeham's (2016) research. The first section (of three) included questions on Twitter the usage variables such as: 'How do you access Twitter'; 'How long have you used Twitter'; 'How often do you access Twitter'; 'How many hours do you spend on Twitter per log-in session'; and 'How many companies/brands do you follow on Twitter'. These questions were asked in order to ascertain the different Twitter usage patterns of the millennials respondents, which were cross-analysed in terms of the two behavioural attitude scales. The following section comprised of the purchase intention and purchase scales to assess the behavioural attitudinal responses. The Likert scales used five-point statements, namely 'strongly agree', 'disagree', 'neutral', 'agree', 'strongly disagree' to assess the for behavioural attitudinal responses, which (as mentioned above) were adapted from Duffett's (2015a, 2015b, 2016, 2017a, 2017b) and Duffett and Wakeham's (2016) research. Hence, the five-point scales of the abovementioned studies were retained for comparative purposes.

Sauro (2010) reported that researchers could adopt either a five-point or seven-point scale for questionnaires using multiple items and large sample sizes since these did not result in much of a difference in results, as used in this study. Cox (1980) ascertained that five-point to nine-point scales were apt depending on the circumstances, where five-point were apt for subject-centred scales (e.g., Twitter advertising). Babakus and Mangold (1992) reveal that five-point scales result in higher response rates; decrease respondents' level of frustration; less confusing; and increase the quality of the responses, which is especially important among younger generations with limited concentration time spans. Furthermore, a number of recent international social media-related studies also used five-point scales (Bianchi and Andrews, 2018; Punel and Ermagun, 2018; Arora and Sanni, 2019; Duffett et al., 2019a, 2019b; Fard and Marvi, 2019; Sashittal and Jassawalla, 2019; Chinchanchokchai and de Gregorio, 2020; Duffett, 2020; Gentina et al., 2020; Vithayathil et al., 2020), which facilitate a comparison with this inquiry's results. This study collected data in terms of the gender and age demographic variable's, which were also cross-analysed against the two behavioural attitude scales.

### *4.3 Data analysis*

A generalised linear model (GLM), which used the Wald's Chi-square statistic, and the Bonferroni correction pairwise post hoc tests were used to establish if there were significant differences between the respondents' behavioural attitudes (dependent variables) and usage and demographic variables (independent variables). SPSS, via confirmatory factor analysis (CFA), was used to assess reliability and validity measures. Reliability was assessed via composite reliability (CR) measures. Convergent validity was assessed via the factor loadings and the average variance extracted (AVE). Discriminatory validity was assessed by taking the AVE values' square root of the purchase intentions and purchase scales, which should be greater than the correlation between these two scales (Fornell and Larcker, 1981).

## **5 Results**

Table 1 outlines the main usage and demographics variables descriptive statistics for the Indian millennials sample.

Over nine out of ten respondents accessed Twitter through mobile devices (smartphones) and a little under the same number had used Twitter for two years or less and accessed this platform daily or least 2–4 times a week. Eight out of ten respondents spent two hours or less and followed five or less companies/brands on this instant messaging conduit. A majority of the respondents were female and age 23–27 years old.

As mentioned above, CFA was performed to evaluate the intention-to-purchase and purchase scales regarding reliability and validity via SPSS. Reliability values of over 0.8 are indicative of robust reliability, whereas values between 0.6 and 0.8 are suggestive that reliability is acceptable (Wiid and Diggins, 2013). The CR measures for the purchase intentions and purchase-scales were 0.862 and 0.782, respectively, thereby indicating satisfactory reliability (refer to Table 2).

**Table 1** Usage characteristics and demographical variables descriptive statistics

| <i>Usage characteristics and demographical variables</i> |                        | <i>n</i> | <i>%</i> |
|----------------------------------------------------------|------------------------|----------|----------|
| Access                                                   | Mobile device          | 462      | 92.4     |
|                                                          | Personal computer (PC) | 6        | 1.2      |
|                                                          | Mobile device and PC   | 32       | 6.4      |
| Length of usage                                          | < or = 1 year          | 315      | 63       |
|                                                          | 2 years                | 119      | 23.8     |
|                                                          | 3 years                | 38       | 7.6      |
|                                                          | 4 years                | 3        | 0.6      |
|                                                          | > or = 5 years         | 25       | 5        |
| Access frequency                                         | Daily                  | 207      | 41.4     |
|                                                          | 2 to 4 times a week    | 216      | 43.2     |
|                                                          | Once in a week         | 43       | 8.6      |
|                                                          | 2 to 4 times a month   | 10       | 2        |
|                                                          | Once in a month        | 24       | 4.8      |
| Hours spent per session                                  | < or = 1 hour          | 248      | 49.6     |
|                                                          | 2 hours                | 155      | 31       |
|                                                          | 3 hours                | 24       | 4.8      |
|                                                          | 4 hours                | 63       | 12.6     |
|                                                          | > or = 5 hours         | 10       | 2        |
| Number of companies/brands followed                      | < or = 5               | 397      | 79.4     |
|                                                          | 6 to 10                | 38       | 7.6      |
|                                                          | 11 to 15               | 5        | 1        |
|                                                          | 16 to 20               | 60       | 12       |
| Gender                                                   | Male                   | 174      | 34.8     |
|                                                          | Female                 | 326      | 65.2     |
| Age                                                      | 18 to 22 years         | 158      | 31.6     |
|                                                          | 23 to 27 years         | 309      | 61.8     |
|                                                          | 28 to 32 years         | 33       | 6.6      |

As mentioned in prior text, convergent validity was assessed via the factor loadings and AVE. The factor loadings of ranged from were 0.671 to 0.874, and the AVE measures of the intention-to-purchase and purchase scales were 0.676 and 0.547, respectively, which were all greater than 0.5 thereby surpassing the threshold level of 0.5 that is indicative of convergent validity (Bagozzi and Yi, 1988). As discussed above, discriminatory validity was assessed by taking the AVE values' square root of the purchase intention and purchase scales, whose value should be larger than the correlation between these two scales (Fornell and Larcker, 1981). The square root of AVE of purchase intention and purchase scales were 0.822 and 0.740, respectively, which was greater than the correlation measure of 0.274, thereby indicative of divergent validity.

The GLM Wald Chi-square test statistic showed a significant difference of  $p < 0.05$  for the purchase intention ( $M = 2.09$ ,  $SD = 0.700$ ) and purchase ( $M = 2.34$ ,  $SD = 0.561$ ) due to Twitter MC. The low mean values indicate that Indian millennials generally do not

respond favourably to Twitter MC. Table 3 shows the tests of model effects in terms of the GLM Wald Chi-square test statistics Bonferroni correction pairwise post hoc tests in terms of the influence of usage and demographic variables influence on intention-to-purchase and purchase.

**Table 2** Twitter MC attitude responses CFA measures

| <i>Attitudinal responses</i>                                              | <i>Factor loadings</i> | <i>AVE</i> | <i>CR</i> |
|---------------------------------------------------------------------------|------------------------|------------|-----------|
| Purchase intention                                                        |                        |            |           |
| Advertising on Twitter increase the purchase intent of featured brands    | 0.874                  | 0.676      | 0.862     |
| I will buy the products that are advertised on Twitter in the near future | 0.813                  |            |           |
| I would buy brands that are promoted on Twitter if I had the money        | 0.777                  |            |           |
| Purchase                                                                  |                        |            |           |
| Advertising on Twitter helps make me loyal to the promoted products       | 0.848                  | 0.547      | 0.782     |
| I purchase products that are promoted on Twitter                          | 0.688                  |            |           |
| I use many of the products that are promoted on Twitter                   | 0.671                  |            |           |

**Table 3** Influence of usage and demographic factors on purchase intention and purchase

| <i>Independent variables</i>        | <i>Purchase intention</i> |           |          | <i>Purchase</i>        |           |          |
|-------------------------------------|---------------------------|-----------|----------|------------------------|-----------|----------|
|                                     | <i>Wald Chi-square</i>    | <i>df</i> | <i>p</i> | <i>Wald Chi-square</i> | <i>df</i> | <i>p</i> |
| Access                              | 3.025                     | 5         | 0.143    | 3.025                  | 5         | 0.151    |
| Length of usage                     | 9.654                     | 4         | 0.000*   | 9.654                  | 4         | 0.000*   |
| Access frequency                    | 2.703                     | 5         | 0.000*   | 2.703                  | 5         | 0.037**  |
| Hours spent per session             | 9.544                     | 4         | 0.000*   | 9.544                  | 4         | 0.000*   |
| Number of companies/brands followed | 3.834                     | 5         | 0.000*   | 3.834                  | 5         | 0.000*   |
| Gender                              | 0.610                     | 1         | 0.000*   | 0.610                  | 1         | 0.000*   |
| Age                                 | 0.177                     | 2         | 0.002**  | 0.177                  | 2         | 0.000*   |

Notes: \*Wald Chi-Square test showed a significant difference at  $p < 0.001$ .

\*\*Wald Chi-Square test showed a significant difference at  $p < 0.05$ .

Significant differences were found in terms of the following variables:

- *Length of usage* ( $p < 0.001$ ): The millennials who had used Twitter for  $\geq 5$  years ( $M = 3.67$ ,  $SE = 0.197$  and  $M = 3.52$ ,  $SE = 0.215$ ) displayed more favourable purchase intentions and purchase attitudes owing to Twitter advertising in comparison to Indian millennials who had utilised Twitter for  $\leq 1$  year ( $M = 1.52$ ,  $SE = 0.139$  and  $M = 2.77$ ,  $SE = 0.151$ ); 2 years ( $M = 2.14$ ,  $SE = 0.143$  and  $M = 2.72$ ,  $SE = 0.155$ ); 3 years ( $M = 1.96$ ,  $SE = 0.151$  and  $M = 2.71$ ,  $SE = 0.164$ ); and 2 years ( $M = 1.53$ ,  $SE = 0.250$  and  $M = 2.96$ ,  $SE = 0.272$ ).

- *Access frequency ( $p < 0.001$  and  $p < 0.05$ ):* Respondents who had logged-on to Twitter daily ( $M = 2.58$ ,  $SE = 0.158$  and  $M = 3.122$ ,  $SE = 0.172$ ); 2–4 a week ( $M = 2.64$ ,  $SE = 0.157$  and  $M = 3.14$ ,  $SE = 0.171$ ); once a week ( $M = 2.77$ ,  $SE = 0.156$  and  $M = 2.83$ ,  $SE = 0.170$ ); and 2–4 a month ( $M = 2.26$ ,  $SE = 0.184$  and  $M = 2.95$ ,  $SE = 0.200$ ) showed more positive purchase intentions and purchase attitudes due Twitter advertising versus Indian millennials who had logged-on one time per month ( $M = 1.57$ ,  $SE = 0.228$  and  $M = 2.65$ ,  $SE = 0.248$ ).
- *Hours spent per session ( $p < 0.001$ ):* The millennial respondents who logged on for  $\leq 1$  hour ( $M = 2.16$ ,  $SE = 0.139$ ); 2 hours ( $M = 2.20$ ,  $SE = 0.141$ ); and 3 hours ( $M = 3.47$ ,  $SE = 0.207$ ) resulted in higher positive purchase intentions and attitudes owing to Twitter advertising than those who remained logged on for  $\geq 5$  hours ( $M = 1.33$ ,  $SE = 0.235$ ). Additionally, respondents who logged on for 3 hours ( $M = 3.92$ ,  $SE = 0.225$ ) displayed more favourable purchase attitudinal responses due to Twitter advertising compared to those who logged on 4 hours ( $M = 2.36$ ,  $SE = 0.172$ ).
- *Number of companies/brands followed ( $p < 0.001$ ):* Indian millennials who followed 11–15 companies/brands ( $M = 3.67$ ,  $SE = 0.198$  and  $M = 3.78$ ,  $SE = 0.216$ ) on Twitter displayed more favourable purchase intention and purchase attitudes owing to Twitter advertising in comparison to those who followed  $\leq 5$  ( $M = 1.65$ ,  $SE = 0.139$  and  $M = 2.91$ ,  $SE = 0.151$ ) and 6–10 ( $M = 2.00$ ,  $SE = 0.161$  and  $M = 2.14$ ,  $SE = 0.175$ ) companies/brands.
- *Gender ( $p < 0.001$  and  $p < 0.05$ ):* Female Indian millennials ( $M = 2.35$ ,  $SE = 0.137$ ) showed greater positive purchase intention and attitudinal responses owing to Twitter advertising than male ( $M = 1.98$ ,  $SE = 0.148$ ) respondents. However, male ( $M = 3.08$ ,  $SE = 0.161$ ) Indian millennials displayed more favourable purchase attitudinal responses due to Twitter MC compared to female ( $M = 2.80$ ,  $SE = 0.149$ ) respondents.
- *Age ( $p < 0.05$  and  $p < 0.001$ ):* The millennial respondents aged 18–22 years ( $M = 2.26$ ,  $SE = 0.146$  and  $M = 3.12$ ,  $SE = 0.159$ ) exhibited more favourable purchase intentions and purchase attitudes in comparison to those aged 23–27 years ( $M = 2.10$ ,  $SE = 0.139$  and  $M = 2.77$ ,  $SE = 0.151$ ).

## 6 Discussion and implications

### 6.1 Key findings

The first and second research questions enquire whether Twitter advertising influences the behavioural attitudes of the Indian millennial customers favourably. The results showed that Twitter advertising generally did have a positive behavioural predisposition on the millennials respondents, and points to a positive influence on the attitude in form of purchase intention and purchase (though marginally), which supports the advertising response hierarchy model theory. Twitter generates the relations between the consumers and the marketing firms due to the varied range of interactive activities on this platform, such as tweet volume, visits to Twitter profile, number of Tweets mentioning the user, and number of user followers. Twitter is considered as one of the top platforms to

disseminate marketing information to the customers, and to connect them with the brand messaging and develop relationships with the organisations (Wood and Burkhalter, 2014; Davis et al., 2019). Marketers use Twitter to enhance viral marketing campaigns by flashing consumer discussions or engage in the WOM communication with the target customers (Fard and Marvi, 2019). Twitter generated \$1.74 billion through global internet advertising reached \$2.93 billion in 2017 (E Marketer, 2019). Twitter usage has increased amid the younger generation, although Facebook being the favourite SMP (Pew Research Center, 2018). Therefore, marketers have established brand specific profiles on the Twitter and invited customers to a variety of online activities, such as 'follow' the brand; write comments; share promotional deals; and engage in the discussions. Twitter also establishes positive brand attitudes and higher purchase intentions (Fard and Marvi, 2019; Haque et al., 2019). The positive attitudes encourage online behavioural intentions. There is an ineffective interaction between the marketers and the social media users, and it is suggested that marketers concentrate on the different decision making phases of consumers such knowledge and information and (perceptive), and purchase (interactive) phases.

The subsequent research questions enquire if certain characteristics related to social media usage influences the Indian millennial customers towards Twitter advertising. This study found that millennials who had used Twitter for longer period of time (i.e., experienced users) displayed more favourable behavioural attitudes than less experienced Twitter users owing to advertising on this instant messaging conduit. It is surmised that these users would have more opportunity to intermingle with the Twitter advertising. Several studies confirm that the user-experience levels effects the attitudinal components for a group of interactive ICT conduits (Duffett et al., 2019a, 2019b, 2020). The investigation ascertained that Indian millennial respondents who had logged-on/accessed Twitter more frequently showed more positive behavioural attitudes than less frequent users. This is due to the increase in the use of mobile devices by the younger generation. Statista (2019) indicates that revenues from the mobile commerce should reach \$700 billion in 2020. The market indicators suggest the growth in the online commerce will continue up to 2022, almost 6 times the rate of store sales, reaching a figure around \$5.7 trillion (Akroush et al., 2020). A survey study carried out in Mumbai, India revealed that 88% of the Indians purchase online through the mobile devices, which is much higher than the global average of 71% (ETRetail.com, 2019). Incisive marketers can post relevant and interesting online content through social media marketing communications to target teenage communities where SNS and the smartphones are an indispensable part of their life (Williams, 2015). Being a reasonable notion, younger generation has a higher affinity to the multi-tasking and mobile devices, and are continuously active while accessing the internet, SNS, text communication or verbally. Additionally, young consumers look for customer associated information for making purchase related decisions and an increase in the Twitter activity result in an increase of other activities like advertising and promotion. Chandra et al. (2012) propose that the consistent users exhibited positive attitudes concerning SNS advertising as it aids purchase decisions. However, another finding of the research revealed that Indian millennials respondents who spent fewer hours per session showed a more favourable behavioural predisposition compared to those who spent longer periods logged on. The result determined that Indian millennials respondents, who followed a greater number of companies/brands on Twitter, exhibited the most positive behavioural attitudes in comparison to those who followed fewer companies/brands owing to MC on this instant messaging channel. No differences

were observed in the perceptive responses among the regular and irregular online users towards the advertising via social media by Chandra et al. (2012), which supports the results of the study. However, the results suggest the millennials who are frequent users and log in several times (daily and multiple times in a week) demonstrated more favourable predispositions to Twitter advertising in all the attitudinal stages.

The fifth and sixth research questions of this study enquired if certain demographic elements (like gender and age) can influence the behavioural attitudes of the Indian millennial users in terms of Twitter advertising. This study established that female Indian millennial respondents showed more positive intention-to-purchase predispositions displaying higher levels of affective attitude due to Twitter advertising. The findings of Walter (2014) and Jinang et al. (2019) are highly congruent with the findings of the study, and disclosed that males display less positive attitudinal responses as compared to women towards SNS advertising. However, the converse result was shown in terms of purchase, where the male respondents display the most favourable predispositions. Walter (2014) suggested marketers should take the advantage of higher participation of the younger females in the social media engagements, resulting in promising affective attitudes towards the SNS advertising.

The age demographic variable investigation ascertained that younger Indian millennial respondents displayed more positive behavioural attitudes than older users towards Twitter advertising. The attitudes of younger population groups are more positive towards the social media advertising. Younger respondents use and accept the social media marketing on a larger scale (Duffett, 2020). Hence, we can postulate that Indian millennials cohort does not exhibit many apparent variations on their purchase intentions and purchase attitudes to Twitter advertising. The spending power of the millennials is anticipated to grow exponentially with the passage of time. Hence, it is imperative to the marketers and the brands to develop relationships through the interactive marketing communication conduits offered by Twitter to benefit from lucrative phenomenon (Priporas et al., 2017).

## 6.2 *Theoretical implications*

Several researchers have tried to establish the direct impact of advertising on the attitudes concerning the brands, which encourages attitudinal predispositions (purchase intention and purchase attitudes). As previously discussed, the traditional advertising response hierarchy models required additional inquiry to establish if these also fitted online advertising or not. The topic had been considered interesting to the academic community, as well as advertising practitioners, since the inception of online advertising. Rodgers and Thorson (2000) argued that the traditional methods continue to apply in the online advertising context too, since the basic intentions of doing advertising online are analogous with the traditional advertising intentions. The popular hierarchy-of-effects model in advertising is widely considered as a complete elucidation how the advertising works, and therefore is widely considered to measure the advertising effectiveness (Duffett, 2020). Few inquiries had been previously conducted to relate the effects of marketing communications on the Twitter within the aforementioned theoretical network, especially from an emerging market context. Hence, this research assessed the effects of Twitter advertising in context to the traditional hierarchy-of-effects model's behavioural attitude stage. The findings of this study suggest a positive influence on the millennials' behavioural attitudes through Twitter advertising. Although the effect is marginal, it also

confirms the communications of effect pyramid model, which was postulated based on research in traditional context advertising. According to the model, realising the objectives at a higher advertising response hierarchy model's levels becomes more difficult to achieve, viz., purchase intention and purchase. Hence, there is a decline in the number of prospective customers as they move up the pyramid's hierarchy. Negative attitudes toward internet advertising resulted in lower purchase intention, while positive attitude towards internet advertising generally ensued and caused repeated purchases and higher expenditure online (Duffett, 2015a, 2015b). A favourable attitude of consumers towards advertising on social media effects the behaviour of selecting and clicking on advertisements (Cheung and To, 2017). Accordingly, positive attitudes also influence consumers' online purchase behaviour, which is in congruence with the results of Duffett (2015a, 2015b). The millennial customers purchase the brands online with a higher frequency compared to prior generational customers (Herrando et al., 2019). Therefore, we can conclude that Twitter advertising also adheres to the same concept of traditional advertising practices in terms of advertising response hierarchy models (communications of the effect pyramid and hierarchy-of-effects). The study contributes to the attitudinal research literature and developing theory in context of emerging economy millennials. This study also revealed that the shorter log-on durations and higher number of companies/brands followed had a positive impact on the purchase intentions and purchase attitudes of the millennials towards Twitter advertising. Additionally, greater length of the usage and higher log on frequency of Twitter also resulted the most favourable attitudes to Twitter advertising. The behavioural activities are affected by the frequency of the internet usage and several users use the SNS as a part of daily routine; to overcome the ennui or utilise the time between the activities (Pontes et al., 2015; Turel and Qahri-Saremi, 2016). The study also provided insights about the positive impact of the age and gender on the behavioural attitudes of Indian millennial users towards Twitter advertising. This information makes a vital contribution to the consumer attitudinal research literature in social media advertising context, as extant literature is lacking in terms of research featuring higher levels of communications-of-effect pyramid and advertising response hierarchy models (e.g., hierarchy-of-effects) based on the above-mentioned variables.

### *6.3 Practical implications*

Though discussed partially in the findings sections, the specific practical or managerial implications are discussed here. The study's findings are very insightful in terms of breaking down the millennial population of one of the world's fastest growing economy India. India is among the youngest countries in the world based on the average age. With growing per capita incomes, advanced telecommunication, internet availability, millennial segment in India is very influential from the business viewpoint. The way businesses are conducted and evaluated has changed due to the increased level of social media interaction of the millennials, ultimately leading to the business transformation. This study found that Twitter advertising has an encouragingly positive influence on the purchase intentions and purchase attitudes among the Indian millennial customers. This should help traditional organisations to not just acknowledge, but also adapt their marketing communication to include Twitter advertising in their marketing mix budget. Another major finding of this study is the fact that Indian millennial respondents who spent fewer hours per session showed a more favourable behavioural predisposition

compared to those who spent longer periods logged on. This could be a revelation as past studies associated longer time with positive behaviour. The marketers can use this information to create short and crisp marketing communication to generate adequate curiosity for a Twitter user to engage with the brand/product. This might be challenging for marketers as many brands in the same and different usage categories are aiming for the attention of the same group of target customers. Though deeper psychological studies are needed to guide advertisers to the perfect content, the study could be considered as a catalyst for further research. Lastly, the findings of the research also revealed that female millennial respondents showed more positive intention-to-purchase predispositions displaying higher levels of affective attitude due to Twitter marketing communications. Indian females as opposed to females from the western countries are relatively new to the concept of monetary independence and this has major implications for consumer markets. Studies show that the female customers have specific intentions and motives for the purchase and they engage with the products that are related to self-expression. The marketing content is very important to engage them, so it is suggested that the use of emotional appeals might work to influence Indian females. Marketers can also creatively use Twitter to collaborate with a social campaign like #PositionOfStrength. #PositionOfStrength is an initiative empowering the Indian women to reduce the gender equality gap among the online users.

## **7 Conclusions**

Several organisations hold a myth that by establishing a Twitter page and posting the online content occasionally would lead to a gradual surge in the sales, which is not true. Social media marketing communications must be incorporated as an essential element in the organisation's promotion mix, along with other promotional plans to increased sales revenues. The millennial customers have a high purchasing capacity and due to their strategic alignment in-between the Gen X and Gen Z; they possess an influential ability on the other social groups. Millennials media usage patterns and user attitudes are also influential to several social media channels, which are imperative to the marketers and their brands. A comprehensive familiarity with the millennial cohort could allow the organisations to develop effective promotional programs through Twitter advertising. The research yields fresh insights about social media advertising in an Indian context, which is of benefit to the marketers who intend to use Twitter, and to the scholars with research interests in attitudinal theory development. The research provides significant acumen about the behavioural attitudes of the Indian millennials towards Twitter advertising. Twitter advertising was also found to have an influence on several characteristics of the usage patterns and demographic-related variables, which had a positive influence on the buying intentions and purchase predispositions (since there is limited evidence of prior empirical investigation). In order to appeal the capricious and difficult to reach the millennials, marketers should aim to develop interactive and stimulating advertisements. Firms and managers need to identify and comprehend the activities of the present customers and future potential customers on SNS like Twitter. Hence, marketers should be proactive in altering or adapting their SNS strategies owing to the environmental changes, or based on the customer response and academic research to enhance the effectiveness of their marketing communication programs. This research has aided in

reducing the above-mentioned academic-practitioner gap, especially in an emerging market context.

## 8 Limitations and future research directions

During the course of study, few limitations were observed and call for an additional research by featuring some additional aspects about social media advertising. The research did not incorporate different forms of Twitter marketing communications, so it is suggested further studies to determine if differences exist in the attitudinal effectiveness among the different forms of Twitter marketing communications. A single SNS was considered to study the behavioural attitudes of the millennials consumers, other popular and widely accessed SNS like Snapchat, YouTube, LinkedIn, Instagram, TikTok, Pinterest and Facebook could be used to assess other attitudinal components of the customers in the future studies. Future research is suggested to study the cognitive and the affective attitudes of the consumers, as they need to be aware and cognisant with the products of the company, and develop a positive emotional attachment before progressing to the behavioural needs. This study investigates behavioural components of the attitude based on quantitative data, whereas a qualitative data will provide deeper attitudinal insights among millennial customers. Comparative future research in between different countries could also be considered, since an emerging country like India with a diverse and multicultural environment may differ from other developed and developing countries.

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